



KANE COUNTY

Brolley, Berman, Burns, Kaptain, Pickett, Michels

Hernandez, Silva, Martin, Allan, Kojzarek, Lenert

Ex-Officio: Frasz, Lauzen & O'Connor

STORMWATER MANAGEMENT PLANNING COMMITTEE

TUESDAY, APRIL 11, 2017

County Board Room

Agenda

4:00 PM

Kane County Government Center, 719 S. Batavia Ave., Bldg. A, Geneva, IL 60134

1. Call to Order
2. Approval of Minutes: February 14, 2017
3. Public Comments
4. Discussion: Setting Meeting Schedule
5. Discussion: Metro West Appointment of Municipal Members
6. Approval: Appointment of Technical Advisory Committee Members and Alternates
7. Approval: Appointment of Stormwater Agricultural Subcommittee Members
8. **RESOLUTION:** Contract for Consulting Services to Revise Kane County Stormwater Management Ordinance
9. New Business
10. Adjournment

**KANE COUNTY STORMWATER TECHNICAL ADVISORY COMMITTEE AND AGRICULTURAL SUBCOMMITTEE
APPOINTMENTS**

TAC voting member	TAC voting alternate
Ron Rudd – City of Elgin	Scott Hajek – City of Elgin
Karen Young – City of St Charles	Chris Bong – City of St. Charles
Dan Feltman – City of Aurora	Steve Andras – City of Aurora
Andrea Podraza – City of Batavia	Scott Haines – City of Batavia
Peter Wallers – Engineer Enterprises	Tim Paulsen – Engineering Enterprises
Tom Slowinski – V3	Greg Wolterstorff – V3
Matt Bardol – Geosyntec	Jodi McCarthy - Geosyntec
John Wills – WBK	Chuck Hanlon - WBK
Dan Olsem – Crown Development	Jennifer Cowan – Crown Development
Jerry Culp – Kane County Forest Preserve	Ben Haberthur – Kane County Forest Preserve
Dan Lobbes – Conservation Foundation	Tara Neff – Conservation Foundation
Ag Committee Chairman	Ag Committee Vice Chairman
TAC non voting member	TAC non voting alternate
Anne Wilford – Kane Co Water Resources	Rob Linke – Kane Co Water Resources
Alex Finke – Illinois Realtors Association	n/a
Melissa Custic – Morton Arboretum	n/a
Thomas Polzin – Hey and Associates	Jeffrey Mengler – Hey and Associates
Stormwater Agricultural Subcommittee	
Mike Kenyon – County Board	n/a
Tom Huddleston – Huddleston-McBride	n/a
John Peshke - Plato Rutland DD	n/a
Kane Co. Ag Committee Staff member	n/a
Stan Schumacher – Virgil DD	n/a
Steve Arnold – Kane County Farm Bureau	n/a



RESOLUTION/ORDINANCE EXECUTIVE SUMMARY

Resolution No.

Approving a Contract with Engineering Resource Associates for Update to Kane County Stormwater Ordinance

Committee Flow: Executive Committee, County Board

Contact: Jodie Wollnik, 630.232.3499

Budget Information:

Was this item budgeted? yes	Appropriation Amount: \$100,000
If not budgeted, explain funding source:	

Summary:

The Kane County Purchasing Department solicited qualifications from consulting firms to provide services for the update to the Kane County Stormwater Management Ordinance as requested by the Kane County Stormwater Management Planning Committee. Qualifications were received from two highly qualified firms. Kane County Environmental & Water Resources Division completed the qualifications based consultant selection process and has negotiated a contract with Engineering Resource Associates for an amount not to exceed \$100,000. Additional funds to be negotiated as required to complete the update in subsequent years with County Board approval.

STATE OF ILLINOIS

COUNTY OF KANE

RESOLUTION NO.

**APPROVING A CONTRACT WITH ENGINEERING RESOURCE ASSOCIATES FOR UPDATE
TO KANE COUNTY STORMWATER ORDINANCE**

WHEREAS, the Kane County Purchasing Department solicited qualifications through request no.10-017 Consulting Services Revision to Kane County Stormwater Management Ordinance; and

WHEREAS, staff reviewed the submittals following the Qualifications Based Selection (QBS) – Division of Environmental & Water Resources procedures; and

WHEREAS, Engineering Resource Associates, Inc, 3S701 West Avenue, Suite 150, Warrenville, IL has experience and professional expertise in authoring and updating Stormwater Ordinances and Technical Manuals.

NOW, THEREFORE, BE IT RESOLVED by the Kane County Board that the Chairman thereof is hereby authorized to execute the Contract for Professional Services Agreement with Engineering Resource Associates for an amount not to exceed One Hundred Thousand Dollars (\$100,000.00) for a one year term, and includes two (2) one-year options for renewal. The renewal options are contingent on receiving additional Riverboat grant funding.

Line Item	Line Item Description	Was Personnel/Item/Service approved in original budget or a subsequent budget revision?	Are funds currently available for this Personnel/Item/Service in the specific line item?	If funds are not currently available in the specified line item, where are the funds available?
120.010.020.50150	Contractual/Consultant	yes	yes	n/a

Passed by the Kane County Board on May 9, 2017.

John A. Cunningham
Clerk, County Board
Kane County, Illinois

Christopher J. Lauzen
Chairman, County Board
Kane County, Illinois

Vote:

Stormwater Ordinance Consultant

COUNTY OF KANE

**KANE COUNTY DIVISION OF
ENVIRONMENTAL & WATER
RESOURCES**



**Kenneth N. Anderson, Jr
Director**

**Jodie L. Wollnik, P.E., CFM
Assistant Director**

County Government Center
719 Batavia Avenue
Geneva, IL 60134
Phone: (630) 232-3497
Fax: (630) 208-3837
e-mail: WollnikJodie@co.kane.il.us
website: <http://www.co.kane.il.us>

TO: Kane County Stormwater Management Planning Committee
Kane County Purchasing Department

FROM: Ken Anderson – Director of Environmental and Water Resources

DATE: April 4, 2017

RE: 10-017 Consulting Services Revision to Kane County Stormwater Management Ordinance

The County received Statements of Qualification and Proposals from two highly qualified consultants for updating the Kane County Stormwater Management Ordinance. Staff followed Qualification Based Selection procedures and interviewed both firms. Through the interview process staff was highly impressed with the Engineering Resource Associates team and project approach. They had a clear understanding of the County's goals and had significant detail that they presented to demonstrate how the goals will be accomplished. In addition, their project team included a professional editor as a subconsultant. As many of the issues with the current Ordinance relate to the ease of use of the document and editing issues, inclusion of a professional editor on the team was significant in our review of the Consultants.

We therefore recommend award of the Consulting Services Contract to Engineering Resource Associates.

PROPOSAL RESPONSE FORM
For
CONSULTING SERVICES

RFP Due Date & Time: 3:00 P.M. FRIDAY, MARCH 10, 2017

To: County of Kane
Purchasing Department, Bldg., A, Room 210, 212, or 214
719 S. Batavia Ave., Geneva, IL 60134

The proposer shall return RFP with all documents, as well as literature, samples, etc. as required within the specifications.

The undersigned proposer, having examined the specifications and any other related documents, hereby agrees to provide services per specification and to perform other work stipulated in, required by and in accordance with the proposal documents attached for and in consideration of the proposed prices.

RECEIPT OF ADDENDA: The undersigned hereby acknowledges receipt of following addendum(s): _____; _____; _____; _____.

By signing this proposal, the proposer hereby certifies that they are not barred from bidding on this contract as a result of a violation of either Title 3, Part F, Article 33E-3 or 33E-4 of the Illinois Criminal Code of 1961, as amended. The awarding of any contract resulting from this RFP will be based upon the funding available to Kane County. The terms of the RFP and the response shall be incorporated by this reference as though fully set forth into the Contract notwithstanding any language in the contract to the contrary. In the event of any conflict between the terms of the Contract and the terms of the RFP and the response, the terms of the RFP and the response shall govern. Every element or item of the RFP and the response shall be deemed a material and severable item or element of the contract. This is a one (1) year contract with mutual option for three (3) year renewal period upon agreement by both parties. **THIS SECTION MUST BE SIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE COMPANY OR ENTITY RESPONDING TO THE RFP.**

Signature _____

Typed Signature _____ John Mayer

Company _____ Engineering Resource Associates, Inc.

Address _____ 3s701 West Avenue, Suite #150

Phone # _____ (630) 393-3060 Fax# _____ (630) 393-2152

Federal I.D./Social Security # _____ 36-3686466 Date _____ 3-10-17

ACCEPTANCE

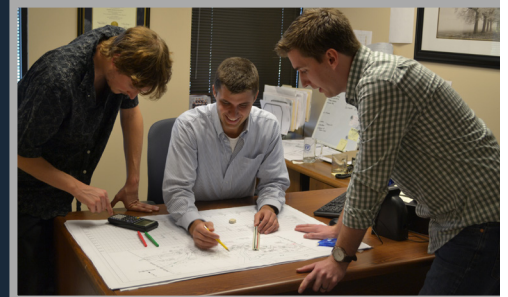
The Offer is hereby accepted for Consultant Services for Update to the Kane County Stormwater Management Ordinance.

The Contractor is bound to provide the materials and services listed in the attached agreement and based upon the Request for Proposal, including all terms, conditions, specification and amendments, the Contractor's offer is accepted by the County of Kane.

This contract shall henceforth be referred to as Contract Number **10-017**. The Contractor has been cautioned not to commence any billable work or to provide any materials or services until this Contractor receives a purchase order and or notice to proceed.

Christopher J. Lauzen
Chairman, County Board
Kane County, Illinois

Date



Proposal for:

#10-017 Consulting Services - Comprehensive
Review and Revision of the Kane County Stormwater
Management Ordinance

Prepared for:

Kane County Government Center
ATTN: Tim Keovongsak, Buyer II
Purchasing Department, Building A, Room #210
719 S. Batavia Avenue
Geneva, IL 60134

Due: March 10, 2017 at 3:00 PM

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ERA Company Profile
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Section 2 - Resumes (See SQPD)
Section 3 - Subconsultants
Section 4 - Project Experience
Section 5 - Project Approach
Section 6 - References,
Certificate of Insurance
Disclosure, Checklist

Primary Contact:

S.M. "Monica" Hawk, PE, CFM
Project Manager
3S701 West Avenue, Suite 150
Warrenville, IL 60555
P: 630-393-3060
F: 630-393-2152
MHawk@eraconsultants.com

March 10, 2017

Tim Keovongsak, Buyer II

Purchasing Department, Building A, Room #210

County of Kane

Kane County Government Center

719 S. Batavia Avenue

Geneva, IL 60134

**Subject: Proposal for #10-017 Consulting Services – Comprehensive Review and Revision
 of the Kane County Stormwater Management Ordinance**

Dear Tim:

Engineering Resource Associates, Inc. (ERA) is pleased to submit this proposal for #10-017 Consulting Services. Our proposal was prepared in accordance with the Request for Proposals and our experience on similar assignments.

ERA is a full-service civil engineering, structural engineering, environmental science and surveying firm with over 26 years of specialized expertise in municipal engineering, water resource and stormwater management projects. We are a client-focused firm dedicated to providing cost-effective

WARRENVILLE

3s701 West Avenue, Suite 150
Warrenville, IL 60555
P 630.393.3060

CHICAGO

10 South Riverside Plaza, Suite 875
Chicago, IL 60606
P 312.474.7841

CHAMPAIGN

2416 Galen Drive
Champaign, IL 61821
P 217.351.6268

solutions, responsive service, outstanding technical expertise, consistent quality and superior service to our clients.

ERA has the qualifications necessary to provide comprehensive ordinance review and revision services described in the Request for Proposal. The statement describes our expertise and presents several advantages ERA offers on this assignment including:

Ordinance Development Experience – ERA has developed and revised other comparable ordinances in the northeastern Illinois. ERA authored the Cook County Watershed Management Ordinance (WMO) for the Metropolitan Water Reclamation District of Greater Chicago (MWRD). We have gained extensive knowledge of the planning, communication and decision making process that goes into a project such as this. We have also served a similar role working with stormwater ordinance revisions or technical reference manuals for DuPage County, Lake County, Village of Lily Lake, and Village of River Forest.

Municipal and County Experience - ERA has provided site development and stormwater plan review, National Pollutant Discharge Elimination System (NPDES) compliance assistance and Community Rating Systems (CRS) services for numerous municipalities throughout Northeast Illinois. Reviews have included all site aspects of large residential developments, single family grading plans, commercial sites, industrial developments, and complicated linear developments. Some of the project team members have previously served as county and municipal staff responsible for stormwater, wetland, floodplain/floodway and subdivision reviews. Our team possesses a strong understanding of the issues and concerns involved in site development projects from a governmental entity's perspective.



Stormwater Experience - ERA is a leader in analysis, design, permitting and construction of stormwater management projects. Our extensive experience in this realm means that we are familiar with the requirements and staff of numerous regulatory agencies. We have acquired a wide range of stormwater and floodplain, wetland/riparian permits through Cook, DuPage, Kane, Lake and McHenry, and Will Counties, IDNR-DOWR, FEMA, IHPA, USACE, IDOT, IEPA and USFWS.

Subconsultants - Griffin | Williams LLP will provide legal review and BRONNER will provide professional editing to the final document. Modification to the Kane County Stormwater Management Ordinance will require a review through the lens of a legal perspective. Therefore, ERA is pleased to have Attorney Patrick Griffin with Griffin Williams, LLP, to serve as a subconsultant providing legal direction in the wording and development of the ordinance modifications. Formatting and editing services are an important aspect for a successful project. ERA has selected BRONNER to provide these services to the degree required for submitting a well planned document.

Our proposed Project Manager and single point contact for this assignment will be S.M. “Monica” Hawk, PE, CFM. She has over 15 years of experience on similar projects including her stormwater leadership role serving on McHenry County staff during their stormwater ordinance re-write process and her role serving as Kane County staff reviewing permit applications and identifying shortcomings with the ordinance. She recognizes the importance of this Stormwater Management Ordinance Review and Revision Project. She can be reached at 630-393-3060 ext. #17.

Respectfully submitted,
ENGINEERING RESOURCE ASSOCIATES, INC.

S.M. “Monica” Hawk, PE, CFM
Project Manager





Company Profile

Engineering Resource Associates, Inc. (ERA) is a consulting firm providing civil engineering, structural engineering, environmental science and surveying services to clients throughout Illinois, Indiana and Wisconsin. Our diverse clientele includes municipalities, park districts, forest preserves, sanitary districts, county agencies and state agencies. We have more than 26 years of experience identifying and working with a wide variety of local, state and federal funding sources. Our staff of 32 professionals includes licensed engineers, structural engineers, surveyors, environmental scientists, certified floodplain managers and CAD/GIS specialists.

Our firm specializes in providing comprehensive services throughout the planning, design and construction phases of a project. The following is a partial listing of the primary types of projects that have been successfully completed by our firm.

- **Water Resource Projects** - Master Plans, Watershed Studies, Ordinance/Guidance Manuals, Storm/Sanitary Modeling, Floodplain Mapping, Hydraulics/Hydrology Analysis, Stream Restoration, Levee Certification and CRS Services
- **Environmental Projects** - Wetland Facilities, Stream Bank Stabilization, Best Management Practices and Natural Area Restoration
- **Transportation Projects** - Roadways, Intersections, Utility Relocation /Designs, Permitting, Traffic Signals, Lighting, Streetscape, and Parking Facilities
- **Infrastructure Projects** - Sanitary Sewers, Storm Sewers, Water Mains and Pumping Stations
- **Structural Projects** - Bridges, Retaining Walls, Dams, Levees and Buildings
- **Construction** - Bidding Assistance, Construction Layout, Observation, IDOT Documentation and Construction Administration
- **Surveying and Mapping Projects** - Topographic Surveys, Boundary Surveys and GIS Services
- **Recreational Projects** - Riverwalks, Golf Courses, Regional Trails/Paths, Community Parks, Dog Parks, and Sledding Hills
- **Site Development** - Municipal Facilities, Education, Healthcare, Commercial and Residential



Office Locations

Warrenville

3s701 West Avenue, Suite 150
Warrenville, IL 60555
Phone: (630) 393-3060

Chicago

10 S. Riverside Plaza
Suite 875
Chicago, IL 60606
Phone: (312) 474-7841

Champaign

2416 Galen Drive
Champaign, IL 61821
Phone: (217) 351-6268

Primary Contact

S.M. "Monica" Hawk, PE, CFM
Project Manager
Phone: (630) 393-3060
Fax: (630) 393-2152
MHawk@eraconsultants.com



Key Staff

ERA's Stormwater Management Ordinance Team

ERA's project team will work closely with the county staff and other stakeholders. The project team will consist of personnel who have specialized expertise in each of the categories defined in the Request for Proposal.

S.M. "Monica" Hawk, PE, CFM | Project Manager

Monica will serve as the primary contact and Project Manager for this project. In this role, Monica will be responsible for coordination between ERA's project team, county staff, elected officials and project stakeholders. She will attend all project meetings, present at board meetings, oversee the ordinance modification process and draft revisions. She has 15 years of professional engineering experience, including nine years at ERA, five years at McHenry County and one year at Kane County. She has served a leading role as a staff member of the McHenry County Planning and Development Department during their comprehensive revision of the county-wide stormwater management ordinance in 2014. Monica represented McHenry County staff at committee, TAC and County Board meetings. So she is well versed in the public participation process and communication to elected official committees and boards. She is also an effective coordinator poised in asking the right questions to solicit valuable input from stakeholders. Monica's most valuable asset is the time she spent working for the Kane County Division of Environmental and Water Resources. During her tenure as a Water Resources Engineer, she had first-hand experience with the challenges and difficulties in working with the outdated Kane County



Key Staff

ordinance and technical manual. This allowed her to formulate ideas for making improvements and can serve as a valuable resource.

Erin Pande, PWS, CFM | Environmental Team Leader/CRS

Erin will be the Environmental Team Leader for this project and serve as a secondary contact in Monica's absence. She will work alongside Monica Hawk, Project Manager, to ensure all areas of the ordinance modifications are appropriately reviewed by staff. She has 16 years of experience in stormwater and environmental regulations including thirteen at ERA and three at DuPage County. While at DuPage County, she was involved in authoring ordinance revisions, and the implementation and enforcement of wetlands and riparian sections of the DuPage County Stormwater and Flood Plain Ordinance.

During her 13 years with ERA she has had the opportunity to author of the DuPage County Best Management Practices Manual; the Metropolitan Water Reclamation District's Watershed Management Ordinance (WMO) and Technical Guidance Manual (TGM); and the revisions to the Illinois Department of Transportation Bureau of Design & Environment (BDE) Manual - Chapter 59 and most recently revised the River Forest Stormwater Management Ordinance. During the adoption of various ordinances and manuals she led Technical Advisory Committee meetings with staff, municipal engineers and stakeholders. In addition to her work authoring Ordinances and technical guidance manuals Ms. Pande has performed permit reviews for Cook, DuPage, Kane, and McHenry County communities. Erin has also participated in numerous training and speaking engagements. These have



Key Staff

included the following:

- Leading the interactive training following adoption of the DuPage County BMP manual;
- Preparing training seminar materials for IDOT BDE Manual;
- Presenting educational seminars on BMP design for the Illinois Association for Floodplain and Stormwater Management (IAFSM);
- Presenting at the Conservation Foundation Beyond the Basics Seminar; and Numerous County, City, Park District board presentations.

Marty Michalisko, PE, CFM | Principal/Water Resource Team Leader

Marty will serve as the Water Resource Team Leader for this project. He will be working alongside Monica Hawk, the Project Manager, to ensure each aspect of the ordinance thoroughly reviewed by staff. He will provide direction throughout the duration of the project. He has over 17 years of professional engineering experience. Marty has strong experience with water resource projects including stormwater analysis, drainage, stream restoration, hydraulic/hydrology analysis, water quality enhancements, and the implementation of Best Management Practices (BMPs). He understands the challenges encountered by a county such as Kane with a mix of urban and rural land uses. He has provided stormwater permit review services for McHenry County which contains a similar mix urban/rural land use. Marty currently serves as the Chair for the DuPage County Municipal Engineers Group. This group is comprised of municipal and consulting engineers whom gather monthly to discuss stormwater ordinance issues and devise consensus for



Key Staff

consistent implementation. He serves as the main ERA contact for stormwater permit review services provided to numerous communities throughout the collar counties. He also has performed many community audits giving him a valuable perspective of how, where and when communities fall short when administering stormwater ordinances. He is also a Principal member of ERA.

John Mayer, PE, CFM | Principal/Project Director

The Project Director serves as the primary quality assurance and quality control program administrator. He is responsible for coordinating technical services with the Project Manager and the Team Leaders and reviewing the quality of deliverables and primary correspondence before it leaves the office. The Project Director is responsible to proactively ensure that adequate resources are allocated and available to meet the project schedule and budget. John will serve in this role for Kane County. He has over 30 years of engineering experience and is a principal of ERA.

Andrew Kustus, PE, CFM | Environmental Engineer

Andrew is the Environmental Engineer for this project. He brings a strong environmental background to the team's knowledge with experience in Best Management Practices across a variety of development sites including small and large residences, park district recreational areas, municipal parking lots, and commercial lots, among others. He has been significantly involved with stormwater and environmental permit preparation in DuPage, Kane, Cook, Will, DeKalb, and Champaign Counties. Andrew's experience will aid



Key Staff

in identifying Green Infrastructure initiatives and appropriate ordinance updates consistent with the Kane County Green Infrastructure Plan.

Jennifer Loewenstein, PE, CFM, CPESC | Senior Water Resource Engineer/NPDES

Jenny will be assigned as a Senior Water Resource Engineer with the stormwater team for this project. With 13 years of professional engineering experience, Jenny serves as a Water Resource Engineer on public and institutional projects involving stormwater improvements, site design and grading, stormwater management permitting and utility layout. Jenny is experienced with the permitting process of federal, state and local permitting agencies. She is well-versed with stormwater and floodplain modeling used in permit applications. Her software experience includes: FEQ, FEQUTL, WSPRO, HEC-1, HECHMS, HEC-2, HEC-RAS, WSP2, TR-20, WinTR-20, Pond Pack, SWMM, XPSWMM, PCSWMM, Hydraflow, Hydrain, HY-8, Culvert Master, and Flow Master, amongst others. Her extensive modeling experience will help in the SMO revisions as they pertain to the stormwater, floodplain and floodway sections of the ordinance.

She is also a Certified Professional in Erosion and Sediment Control (CPESC) and Designated Erosion Control Inspector (DECI) for Lake County. Her erosion and sediment control experience will aid in verifying that the SMO revisions are in compliance with ILR-10 and ILR-40 and using the most current and effective means and methods for protecting our water resources from degradation due to land disturbing activities.



ENGINEERING
RESOURCE ASSOCIATES

Key Staff

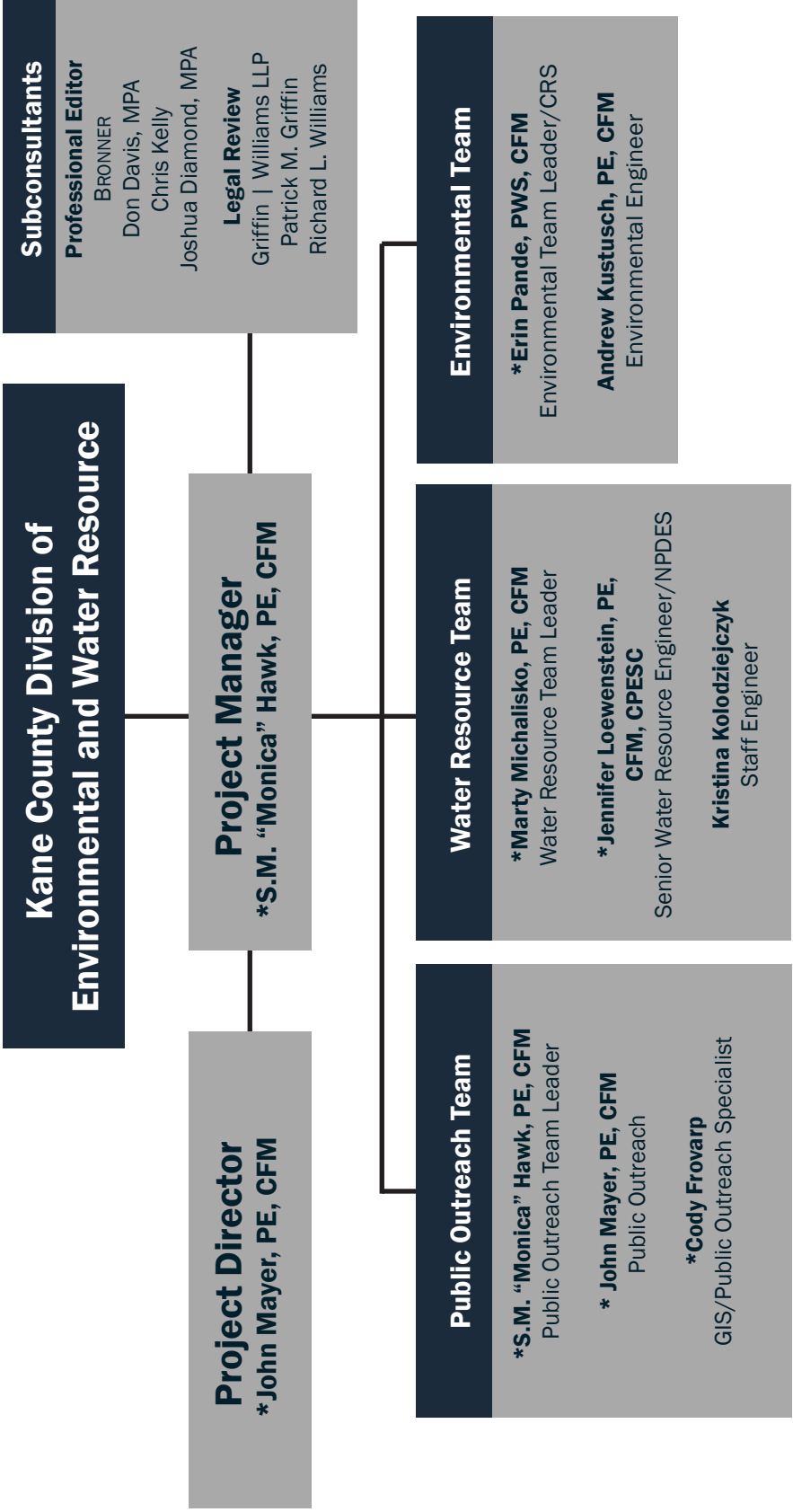
Cody Frovarp | GIS / Public Outreach Specialist

Cody will be the GIS/Public Outreach Coordinator for this project. He will provide any marketing and public relations support necessary for this project including website development, surveys, or press releases, if desired by the County. He has extensive experience in the development, coordination and implementation of marketing communication plans for private and public sector clients. Please see the survey at the following link for an example of an online survey Cody prepared for the MWRD Northbrook Stormwater Study: <http://fluidsurveys.com/surveys/cmfera/era-northbrook-flood-survey/>



ENGINEERING
RESOURCE ASSOCIATES

ORGANIZATIONAL CHART
Proposal #10-017 Consulting Services for Storm Water Management Ordinance





ENGINEERING
RESOURCE ASSOCIATES

Resumes

Resumes

For Proposal Resumes see the Project Key Staff Section located in the SQPD.



Subconsultant Information

ERA's Subconsultants

ERA's project team has selected two companies to provide subconsulting services for this project. BRONNER will provide professional format and editing services for the final document. Griffin | Williams LLP will provide legal review. Here is a brief introduction of each firm.

- **BRONNER:** BRONNER is a nationally known and respected multi-disciplined, professional services company. Since 1987, BRONNER has excelled at delivering comprehensive management and technology consulting, large-scale workforce training, and assurance services to over 450 federal, state, and local government entities. BRONNER solutions enable government entities to identify mission-critical goals, create meaningful and sustainable change within their operational and organizational frameworks, and demonstrate accountability to all stakeholders.

By focusing exclusively on the public sector, BRONNER has developed proven comprehensive insights of the issues and solutions most relevant to its clients. BRONNER approaches projects holistically through its framework of Strategy, Transformation, and Accountability to deliver impactful, sustainable effects to a clientele that spans the full spectrum of public sector entities.



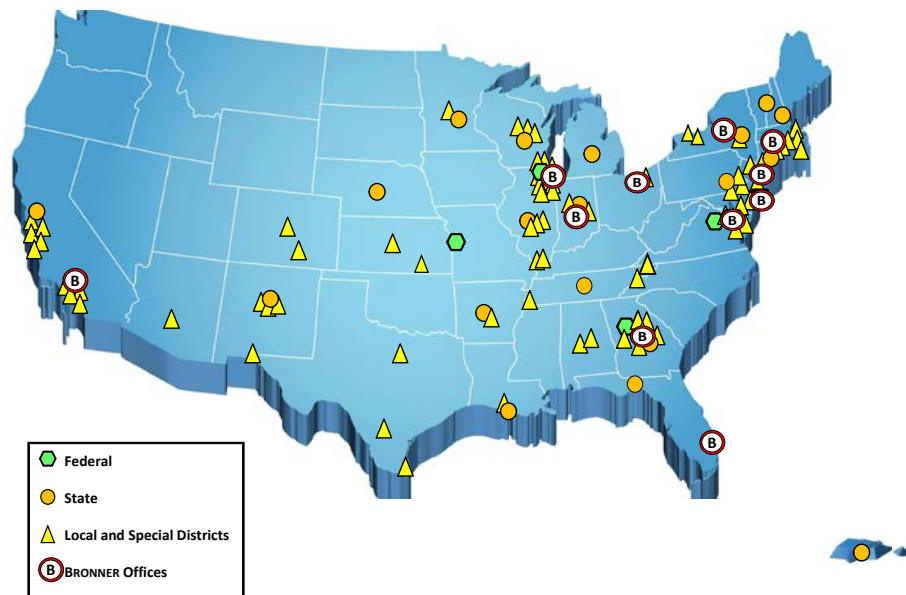
Subconsultant Information

- **Griffin | Williams LLP:** The attorneys at Griffin | Williams LLP have broad professional backgrounds that include both private practice and in-house counsel experience. Its clientele includes municipalities and other units of local government, individuals, not-for-profits, homeowners associations and business entities; from small, privately held start-ups to large, multi-national, publicly traded entities. In that capacity, they regularly confront and address compliance with local, state and federal regulations, including those relating to stormwater management, drainage law and environmental regulations.

Qualifications & Experience

BRONNER is a nationally known and respected multi-disciplined, professional services company. Since 1987, BRONNER has excelled at delivering comprehensive management and technology consulting, large-scale workforce training, and assurance services to over 450 federal, state, and local government entities. BRONNER solutions enable government entities to identify mission-critical goals, create meaningful and sustainable change within their operational and organizational frameworks, and demonstrate accountability to all stakeholders.

Headquartered in Chicago, BRONNER has established a national presence and maintains regional offices in Atlanta, Albany, Boston, Cleveland, Fort Lauderdale, Indianapolis, Los Angeles, New York, Philadelphia, and Washington, D.C.



WBE/DBE Certifications:

Arizona | California | Colorado | Connecticut | District of Columbia | Florida | Georgia | Hawaii | Illinois | Indiana | Maine | Massachusetts | Michigan | Mississippi | Missouri | New Hampshire | New Jersey | New York | Ohio | Pennsylvania | Rhode Island | Tennessee | Texas | Vermont | Virginia | Wisconsin

Figure 1. BRONNER Clients

By focusing exclusively on the public sector, BRONNER has developed proven comprehensive insights of the issues and solutions most relevant to its clients. BRONNER approaches projects holistically through its framework of **Strategy**, **Transformation**, and **Accountability** to deliver impactful, sustainable effects to a clientele that spans the full spectrum of public sector entities.

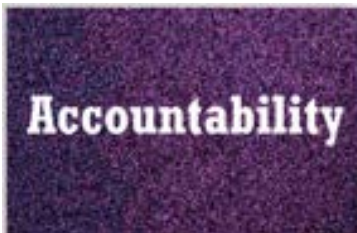
A detailed listing of BRONNER's core service offerings is provided in the space below:



- ❖ Mission and Vision
- ❖ Strategic and Business Planning and Execution
- ❖ Technology Plan
- ❖ Core Business and Services
- ❖ Public Relations and Marketing
- ❖ Resource Development
- ❖ Finance and Administration Systems
- ❖ Risk Identification and Mitigation
- ❖ Stakeholder Support and Advocacy
- ❖ Meetings Facilitation
- ❖ Communications and Outreach



- ❖ Organization Assessment and Redesign
- ❖ Operational Assessment
- ❖ Business Process Reengineering
- ❖ Staffing Analysis
- ❖ Workforce Development and Learning
- ❖ Adaptive Change Management for Government
- ❖ Customer Focused Services and Programs
- ❖ Value Generation and Resource Maximization
- ❖ Business and Technology Alignment
- ❖ Asset Management
- ❖ Executive Search
- ❖ Meetings Facilitation



- ❖ Performance-Based Acquisition and Contracting
- ❖ Regulatory, Program, and Policy Compliance
- ❖ Performance Management Systems
- ❖ Revenue Maximization and Cost Control
- ❖ Internal Controls
- ❖ Quality Assurance
- ❖ Internal Audit
- ❖ Financial and Program Audits
- ❖ Project Planning and Management
- ❖ Customer Surveys

Representative Engagements in the Water Management Sector

Client	Services
City of Atlanta: Department of Watershed Management	Assisted KPMG in providing audit/attestation services to the City's Watershed Management Department.
City of Chicago: Department of Water Management	Permed GIS data validation.
	Provided NDS training.
Metropolitan Water Reclamation District of Greater Chicagoland (MWRD)	Assisted in the preparation and editing of the Cook County Watershed Management Ordinance and the supporting Technical Guidance Manual.
	Reviewed the District's self-insurance plan and accounting processes and monitoring procedures.
	Provided customer service training to MWRD engineers.
	Provided business writing training to MWRD engineers.
	Developed performance measures through staff interviews and research on industry standards and benchmarks.
	Provided IT project management training.
	Assisted in feasibility study for automating time and attendance system.
	Assisted in development of Compensation Study.
	Provided staff to assist payroll division

Representative Engagements in Procedure Writing

Metropolitan Water Reclamation District	Watershed Management Ordinance and the supporting Technical Guidance Manual.
Massachusetts Bay Transportation Authority	DBE Operations Guide
Chicago Housing Authority	ARRA Compliance and Reporting Policies and Procedures
Illinois Department of Employment Security	Revised Procedure Manual
Atlanta Housing Authority	Real Estate Management and Resident Services Policies
Chicago Public Building Commission	Financial and Administrative Policies and Procedures
Chicago Public Schools	Reduced Fare Card Procedures
City of Chicago Department of Aviation	Human Resource Policies and Procedures
Cook County Department of Planning and Development	Subgrantee Accounting Policies and Procedures.
Georgia State Accounting Office	Accounts Receivable Policies and Procedures
Illinois Department of Alcoholism and Substance Abuse	Financial Policy and Procedure Manual
New York City Housing Authority	Financial Policy and Procedure Manual
U.S. General Services Administration	Construction Policy and Procedure Manual

References

For this engagement, BRONNER is pleased to submit the following clients as references, all of whom will attest to BRONNER's professionalism, timeliness, and quality of work. Detailed project descriptions are provided for each of these client references follow.

<i>Client Name</i>	Cook County Department of Transportation and Highways
<i>Project Name</i>	Long Range Transportation Plan
<i>Project Period</i>	April 2014 – February 2017
<i>Contact Name</i>	Maria Choca-Urban, Director of Strategic Planning and Policy
<i>Contact Email</i>	Maria.chocaurban@cookcountyil.gov
<i>Contact Phone No.</i>	(312) 603-1652

Project Summary

As part of a project team, BRONNER has conducted transportation policy and funding analysis in support of a Long Range Transportation Plan (LRTP) for the Cook County Department of Transportation and Highways (DOTH). This assessment has included a review of best practices in land use policies and transportation service provision alternatives to facilitate the expansion and maintenance of transportation services throughout the region. This research has contributed to the identification of recommended policies for Cook County to adopt and implement for the LRTP. These policies are designed to expand connectivity and accessibility throughout the regional transportation network, improve coordination between municipal governments and transit agencies, and promote long-term economic development throughout the region.

To ensure that the LRTP can achieve those goals, BRONNER has assisted in the development of objectives and evaluation criteria to establish a Project Evaluation and Selection Framework (PESF) for DOTH. This framework will enable DOTH to build project portfolios for programming that align each project or policy with the high-level policy priorities of the LRTP. This PESF establishes measurable performance criteria that align with the policy priorities and can be applied across different project types to produce clear comparisons of project performance. Bronner has developed process maps to demonstrate the application of the PESF to DOTH's Five-Year Transportation Plan development process maps and illustrate the PESF's integration within existing planning and programming processes.

BRONNER has worked with DOTH to integrate this PESF into DOTH's asset management plan and overlay asset management planning principles and standards between the two frameworks for seamless integration. These discussions have addressed policy changes that impact the distribution of DOTH resources across infrastructure asset types and project categories, and BRONNER has coordinated with DOTH to translate policy priorities into project spend category goals.

Resumes

Don Davis, MPA

Mr. Don Davis is Director of Government Services at BRONNER. Mr. Davis has over 25 years of extensive experience in finance and budgeting, program evaluation, grants management, project management and government technologies. He possesses a proven ability to quickly analyze and master new issues and lead teams to strategically solve problems, make systematic improvements, and achieve results. He has strong, firsthand experience managing complex projects and initiatives for government agencies. These initiatives include leading the City's Census 2000 efforts, qualifying the City for federal disaster assistance, and managing the compliance and financial reporting for the Community Development Block Grant program. Mr. Davis experience includes managing the Illinois Department of Employment Security's five direct service divisions.

Examples of Mr. Davis's areas of expertise include:

- Finance/Budgeting
- Marketing/Outreach
- Grant Management
- Program Evaluation
- Government Technologies

Mr. Davis's professional experience includes the following representative engagements:

Detroit Housing Commission

- Facilitating the development of a 3-year strategic plan

Metropolitan Water Reclamation District of Greater Chicago

- Analyzed and revised Cook County Stormwater Management Ordinance
- Conducted survey of salaries and benefits in comparable organizations for benchmarking
- Assessed time and attendance policies and procedures as part of feasibility study
- Developed performance measures related to sustainability initiative

Cook County Department of Transportation

- Assessed existing and innovative revenue streams available for transportation network

Jersey City Housing Authority

- Facilitating the development of a 5-year strategic plan

Housing Authority of City of Milwaukee

- Conducted strategic plan retreats for Board and Staff
- Developed business plan for development affiliate
- Assessed ways to strategically optimize organization based on new business models.

New Bedford Housing Authority

- Developing approaches for Moving To Work application

Rochester Housing Authority

- Facilitated the development of a 5-year strategic plan

Cuyahoga Metropolitan Housing Authority

- Facilitated the development of a 5-year strategic plan

Housing Authority of Birmingham District

- Developed new organizational structure and job descriptions

Morristown Housing Authority

- Oversaw organizational analysis and compensation study

Housing Authority of the County of San Bernardino

- Conducted review of Shelter Plus Care program for compliance with federal requirements

US. Department of Housing and Urban Development and MDRC

- Assisting in the design and implementation of a major study of the impacts of rent reform on employment for Housing Choice Voucher tenants

Cuyahoga Metropolitan Housing Authority

- Facilitating the development of a 5-year strategic plan

Fort Worth Housing Authority

- Facilitated the development of a 5-year strategic plan

Metra

- Providing Internal Audit Services
- Assessed Procurement processes

Chicago Housing Authority

- Facilitated development of strategic plan
- Developed strategic plan communication devices
- Assisted CHA Finance Division in transition to an asset management system
- Facilitating programmatic reviews to increase efficiency and effectiveness
- Advised the CHA on compliance and reporting issues related to Stimulus funds
- Conducted compliance and performance audit of private property management firms
- Provided training to CHA staff on procurement process and preparation of RFPs
- Conducted internal audit on fleet operations
- Conducted internal audit on Section 3 program
- Oversaw the document imaging and tracking of returned mail for CHA waitlist update

Housing Authority of the City of Brownsville

- Facilitated the development of a 5-year strategic plan
- Conducted Organizational and Operational Assessment

San Antonio Housing Authority

- Conducted Compensation and Classification Study

Central Arkansas Transit Authority

- Conducted Compensation Study
- Developed new job grade classification evaluation tools and framework for agency

Housing Authority of the County of Santa Clara

- Facilitated the development of a 5-year strategic plan to help the authority improve decision making and resource allocation

Housing Authority of the City of El Paso

- Reviewed agency's ARRA related expenditures to ensure compliance with regulations
- Reviewed procurement processes to ensure systems are in place to ensure compliance
- Reviewed Central Office Cost Center charges to AMPs

Chicago Public Schools

- Developed RFP and evaluation framework for Medicaid Reimbursement Services

Newark Housing Authority

- Facilitated the development of a 5-year strategic plan

City of Chicago Internal Audit

- Conducted a review to ensure Department of Housing and Economic Development is complying with HUD regulations

City of Chicago Department of Innovation and Technology

- Managed the training component of City-wide FileNet Implementation

Birmingham Jefferson County Transit Authority

- Performed a compensation study of salary and benefits to ensure alignment with market

University of Illinois

- Developed a strategic and implementation plan for improving the Procurement Diversity program
- Conducted research on Illinois procurement law's impact on disadvantaged business enterprises

Moving to Work

- Administered and facilitated a two day meeting of the HUD Moving to Work public housing agencies to develop a consensus on regulatory issues and performance measures

Illinois Gaming Board

- Conducted compliance audit of riverboat gaming facility

Housing Authority of Cook County

- Developed a "road map" for delivery of resident services including ways to assess needs, access community-based services and track services

Knoxville Community Development Corporation

- Developed and implemented staffing framework from property management/occupancy manager model to an asset manager model
- Conducting classification and compensation study for select positions
- Conducted a compensation study for executive positions

Bridgeport Connecticut Board of Education

- Assessed and recommended improvements to Operations Division including re-engineering of payroll functions and increasing the use of MUNIS ERP system

Philadelphia Housing Authority

- Assessed internal strengths and weaknesses of the Finance Department
- Provided training to the Board of Commissioners on Moving To Work program

New York City Housing Authority

- Developed procedure manual for the Accounting and Fiscal Services Department

City of Chicago Comptroller

- Developed and implemented change management plan related to moving invoice processing from user departments to centralized processing center

Chicago Public Building Commission

- Prepared policies and procedures related to fraud risk assessment, financial internal controls, entity wide risk assessment and several personnel issues

Illinois Department of Employment Security

- Revised and created operational policies and procedures to reflect the implementation of a new computerized unemployment benefit system

Illinois Tollway Authority

- Conducted management audit focused on actionable recommendations to reduce costs and improve effectiveness

Illinois Department of Transportation

- Conducted interviews for disparity study

Illinois Finance Authority

- Conducted risk assessment of loan programs

Cook County Clerk of the Circuit Clerk

- Developed documentation plan for new computer document management system

City of Chicago Office of Compliance

- Recommended approaches to improve how the City tracks employee time spent on grants
- Reviewed contracts to ensure compliance with procurement regulations
- Assisted in developing the framework for ensuring compliance with ARRA requirements

Employee Retirement System of State of Georgia

- Conducted organizational analysis of management structure

Georgia Department of Human Resources

- Prepared policy and procedure for the cash management system

City of Baltimore, Department of Housing, Code Enforcement

- Conducted a re-engineering of the department's Code Enforcement Division. The efforts included determining appropriate staffing levels, creating new job descriptions with clear job qualifications and appropriate salaries, and redesigning the management structure
- Developed recommendations and preliminary design for Web-based permitting system

Housing Authority of the City of Los Angeles

- Developed a five-year strategic plan including a prioritized operating plan by department

New Orleans' Recovery School District

- Conducted fiscal and management analysis of New Orleans' Recovery School District and New Orleans Public Schools

Chicago Regional Transportation Authority (RTA)

- Conducted a planning workshops for senior staff in order to assess how RTA can best fulfill new legislative mandates from a strategic rather than tactical viewpoint
- Conducted retreat with the RTA Board and senior staff to discuss the role of the RTA in establishing criteria for distribution of capital funds
- Conducted retreat with Board and senior staff to identify challenges and approaches for addressing them
- Facilitated meetings related to sub-regional performance measures and development of marketing partnership agreement
- Prepared risk assessment of RTA and Service Boards (CTA, Metra, Pace)

Illinois Department of Employment Security

- Oversaw five direct service divisions with approximately 1,400 staff in 60 offices
- Managed the implementation of a computerized guided interview system for determining unemployment eligibility by 400 unionized staff with wide range of computer competencies
- Created a comprehensive hiring plan for the department based on a detailed analysis of sources of funding, workloads and existing staffing levels
- Re-engineered the Employment Service division by centralizing the Work Opportunity Tax Credit program and merging it with the Foreign Labor Certification unit
- Oversaw development of a user-friendly employee guidebook to provide a clear understanding of the Department and employee's roles and responsibilities
- Implemented two multi-faceted employee appreciation weeks, including letters of appreciation from the Governor, business cards for all staff, promotional gifts, and a customer service video contest; successfully improving morale for all staff
- Coordinated agency's response for Disaster Unemployment Insurance program

City of Chicago Office of Budget and Management – Disaster Recovery Coordinator

- Coordinated City efforts to qualify the City for FEMA and SBA disaster aid for four sewer floods and two snow emergencies resulting in \$24 million to the City and \$278 million to residents
- Wrote successful grant application for \$900,000 in HUD Disaster Recovery Assistance in response to combined sewer flooding
- Documented 1992 Freight Tunnel Flood costs to obtain \$9 million in FEMA funds
- Managed grant application to obtain \$10 million in mitigation funds for the pilot version of the Rain Blocker solution to sewer floods

City of Chicago Mayor's Office of Intergovernmental Affairs

- Prepared major revision to the Legislative Liaison's Handbook delineating responsibilities, summarizing the legislative process, and providing a standardized format for analyzing costs, benefits, and political implications of all proposed City Council legislation

City of Chicago Office of Budget and Management – CDBG Compliance and Reporting

- Participated in HUD's national task force for developing Consolidated Plan guidelines and then led the development of the City of Chicago's first Consolidated Plan
- Developed City of Chicago's implementation plan for HUD's Section 3 local hiring requirement
- Created and implemented a standardized application and contracting process for hundreds of City of Chicago sub-recipients receiving HUD's Community Development Block Grant funding
- Analyzed effectiveness of HUD funded programs for job training, infant mortality reduction, and controlling gang violence resulting in the elimination of unsuccessful programs

Village of Antioch Illinois

- Initiated and orchestrated the annexation of 1,600 acres of strategically located property, one of the largest annexations in Illinois history, followed by an 8,000-acre comprehensive plan.
- Oversaw development and updating of land use ordinances
- Administered downtown TIF district

City of Geneva Illinois

- Intern in Community Development Department

Education

Mr. Davis received his Master of Public Affairs/Administration with a concentration in Urban Management and Development from Northern Illinois University, and his Bachelor of Arts degree in History from the University of Illinois.

Chris Kelly

Mr. Kelly is a Senior Government Services Consultant with BRONNER. He has three years of comprehensive experience in project management, organization assessment, change management, strategic planning, internal audit, alternative revenue sourcing, grants management, and compliance review. He has worked extensively with subjects surrounding education, public housing, change management, government finances processes and operations, and planning at the local, state, and federal levels.

Examples of Mr. Kelly's areas of expertise include:

- Operational Assessment
- Strategic Planning
- Internal Audit
- Procedural Review and Analysis
- Training
- Grants Management
- Performance Audit
- Compliance Review
- Stakeholder Analysis
- Change Management
- Risk Assessment
- Alternative Revenue Sourcing

Mr. Kelly's professional experience includes the following engagements:

Rochester City School District (RCSD)

- Currently engaged to perform independent evaluation of struggling schools within RCSD
- Assisting in the development of financial and organizational assessment and plan
- Assisting district's central office in preparing quarterly reports to NY State Board of Education
- Facilitating development of work-based learning program with the City and local nonprofits

Jersey City Housing Authority

- Serving as project manager to deliver strategic plan
- Facilitated two targeted retreats and performed extensive stakeholder outreach and interviews

Detroit Housing Commission

- Facilitating the development of a 3-year strategic plan

City of Los Angeles Office of the Controller

- Engaged by the Controller to assess existing and develop new framework for internal controls over external financial reporting in accordance with COSO, Green Book, and GAAP standards
- Performed interviews with Controller staff and City department stakeholders to discover and record existing policies, procedures, and controls in place relating to external and yearend financial reporting
- Developed written framework for internal controls over financial reporting, controls checklist, electronic template, and training documents
- Facilitated training to City departments for implementation of internal controls

Chicago Metra

- Performed internal audit functions and risk assessment for audits examining contractual compliance, payment history, and process efficiency
- Oversaw data collection, data profiling, and data mapping of audit documents

U.S. Department of Justice Bureau of Prisons

- Facilitated team of education and government operation experts in the assessment and improvement of the federal prisons education program on a national level
- Developed deliverable documents including reports, assessments, and organizational recommendations
- Performed project management, scheduling, and coordination of multiple teams across the country
- Analyzed and synthesized research on nation-wide prison statistics, trends, and related intersections with education

Philadelphia Housing Authority

- Performed project management services in support of the creation of the conceptual design and implementation plan for a new, state of the art school
- Performed alternative revenue sourcing services including philanthropic and community outreach, grants sourcing, and tax research to fund the new school
- Managed team of talented industry and thought leaders, contributing to the design
- Prepared draft and final reports on school design, facility plan, community and philanthropic support, and alternative school concept

Rochester Housing Authority

- Currently assisting the Rochester Authority (RHA) in developing five-year strategic plan
- Performed 35 internal stakeholder interviews for workplace environment analysis
- Conducted and analyzed electronic surveys of RHA staff, vendors
- Held open discussion meetings with RHA residents and program participants
- Conducted two facilitated retreats with RHA Executive Staff and Board of Directors to present findings and develop mission, vision, core values, strategic goals, and supporting tasks
- Developed goal tracker dashboard with metrics, assigned responsibilities, prioritization, and due dates of action plan tasks to support achievement of the plan

Housing Authority of the County of San Bernardino

- Performed audit of participant eligibility for HUD-funded Shelter Plus Care program, which serves homeless individuals with mental-illness related disability
- Evaluated client records and submitted recommendations from County's Department of Behavioral Health for completeness
- Worked to deem compliance of applicants within the frameworks of the definitions of homelessness and disability set forth by HUD, the U.S. government

New Mexico Department of Veterans' Services

- Facilitated two-day retreat for DVS senior staff and leadership
- Developed and refined updated mission, vision, core values, goals, strategic objectives, and metrics to create foundation for a new three year strategic plan

- Provided comprehensive research and notes on comparable and/or best practice examples of DVS policies and procedures in other veterans' service agencies

Newark Housing Authority

- Facilitated the development of a five-year strategic plan deliverables and presentation

Oakland Housing Authority

- Designed and implemented audit plan for Oakland Housing Authority Police Department Asset Forfeiture Fund with a focus on accountability, process efficiency, and legal compliance
- Performed stakeholder interviews for an organizational Risk Assessment to inform the design of additional internal audits

Detroit Public Schools

- Performed stakeholder interviews of administrative staff, and analyzed and re-engineered grant sourcing and management process.
- Delivered comprehensive strategic Assessment of DPS organization

Philadelphia Housing Authority

- Facilitated change management for new Board of Directors following HUD decision to be the authority in receivership
- Reviewed and created proposed redesign of Authority's website in compliance with best practices and Federal standards

Northgate Information Solutions

- Undertook public housing technology use survey and analysis to identify best practices and emerging trends in public housing
- Delivered market penetration recommendations for public sector housing in the U.S.

Education

Mr. Kelly received his Bachelor of Arts degree in Cognitive Science and a minor degree in Biological Basis of Behavior from the University of Pennsylvania.

Joshua Diamond, MPA

Mr. Diamond is a Government Services Consultant with BRONNER. He has experience working with the public sector in various capacities, including audit and assurance, management consulting, and policy analysis. Mr. Diamond's recent engagements include strategic planning, grant sourcing and writing, internal audit and assessment, compensation studies and job description development. He has provided these services for a wide array of public sector agencies at the local and state level, including municipal departments, transit agencies, and public housing authorities. Mr. Diamond has a demonstrated ability to analyze and understand program requirements and analyze compliance with said requirements.

Examples of Mr. Diamond's areas of expertise include:

- Compensation and Classification Studies
- Operations Assessment
- Procedural Review and Analysis
- Project Management
- Survey Design and Administration

Mr. Diamond's professional experience includes the following engagements:

Detroit Housing Commission

- Facilitating the development of a three-year strategic plan

City of Bloomington

- Engaged by the City to perform an audit of the *John M. Scott Commission's* expenditures, investments and program activity

Waukesha County Department of Administration

- Assessing and preparing recommendations for enhancing Application Controls, Accounts Payable, Vendor Management, User Access, Bank Reconciliation and Journal Entry functions

City Colleges of Chicago (CCC)

- Conducted an investment management audit of CCC's short-term investments
- Assessed whether the process was in compliance with pertinent laws, regulations and CCC policies and procedures while maximizing the returns on these investments

Chicago Metra

- Designed and administered online surveys as part of Procurement and Risk Assessments
- Performed data analyses, developed recommendations based on results and prepared presentation materials to discuss observations and recommendations with Metra leadership

Chicago Housing Authority

- Assisted in developing five-year strategic plan

Housing Authority of the Birmingham District

- Conducted agency-wide organizational and operational assessment
- Developed new job descriptions, classifications, and organizational charts for agency leadership

Jersey City Housing Authority

- Assisted the Authority in developing a five-year strategic plan

Rochester Housing Authority

- Assisted in developing five-year strategic plan
- Developed Goal Tracker dashboard with metrics, assigned responsibilities, prioritization, and due dates of action plan tasks to support achievement of the plan

Florida Department of Transportation

- Conducted an organizational and operational analysis of staffing levels and salary rates, including a comparative analysis with four identified agencies

Cuyahoga Metropolitan Housing Authority

- Assisted in developing five-year strategic plan
- Set project milestones and deadlines, assigned roles, assisted with application writing and editing, conducted benchmarking analysis, and monitored for compliance for grant application

Philadelphia Housing Authority

- Performed alternative revenue sourcing financial services including philanthropic and community outreach, and grants sourcing to fund a new school

Housing Authority of the City of El Paso

- Reviewed procurement processes to identify opportunities for operational efficiencies and to ensure systems are in compliance with federal, state and local policies

Illinois Gaming Board

- Analyzed existing internal controls and verified currency transaction reports

Pennsylvania Department of Transportation (District 6-0)

- Conducted compensation study of salary and benefits practices to evaluate client competitiveness relative to market of regional transit agencies and other public entities

Oakland Housing Authority

- Assessed procurement function and developed strategic framework for enhancing the department's policies, procedures and overall service delivery
- Conducted interviews and administered online surveys to internal staff and contracted vendors
- Performed benchmarking and best practice analysis

Indiana State Board of Accounts

- Developed new organization charts as part of strategic optimization engagement

Education

Mr. Diamond received his Master of Public Administration from New York University, Robert F. Wagner Graduate School of Public Service in New York, New York and his Bachelor of Arts in International Relations from New York University in New York, New York.

MEMORANDUM

TO: Monica Hawk
Engineering Resource Associates
Patrick M. Griffin

FROM: Patrick M. Griffin
Direct: (630) 524-2566
pgriffin@gwillplaw.com

DATE: March 10, 2017

SUBJECT: RFP – Kane County Stormwater Management Ordinance Review

Firm Narrative

The attorneys at Griffin | Williams LLP have broad professional backgrounds that include both private practice and in-house counsel experience. Its clientele includes municipalities and other units of local government, individuals, not-for-profits, homeowners associations and business entities; from small, privately held start-ups to large, multi-national, publicly traded entities. Partners Patrick M. Griffin and Richard L. Williams both place a particular emphasis on representing both private and municipal clients in real estate matters, including residential and commercial sales and acquisitions, zoning and subdivision applications, annexation and disconnection petitions and all other aspects of the land development process, from initial land acquisition through entitlements, construction and sales. In that capacity, they regularly confront and address compliance with local, state and federal regulations, including those relating to stormwater management, drainage law and environmental regulations.

Mr. Griffin began his legal career in 1995 with the local Kane County firm of Shearer, Blood, Agrella & Boose in St. Charles. Mr. Griffin remained with that firm and various successors until 2011, when he joined with Robert K. Villa and Richard L. Williams to form what is now Griffin | Williams LLP. Mr. Villa has since been elevated to serve as a Judge of the Sixteenth Judicial District in Kane County. From 2006 through 2010, Mr. Griffin also served as Vice President and General Counsel to B&B Enterprises Land Developers, a Kane County real estate development firm with over 20 years of experience developing dozens of large scale residential and mixed use projects, primarily in Kane and DeKalb Counties. In that capacity he routinely engaged with municipal entities, planners, engineers and other consultants on issues including zoning and subdivision regulations, stormwater regulations, sanitary sewer regulations, environmental regulations and all other development related challenges.

Mr. Williams's legal career also began in 1995 with the local Kane County firm of Ottosen, Trevarthen, Britz, Kelly and Cooper, where he engaged in the general practice of law and concentrated in municipal and real estate development. He was a partner at Rooks Pitts and Poust and later at Dykema Gossett, PLLC, a national law firm. He also served as a managing

attorney for a fortune 500 energy company, as well as general counsel for a small land development company. In 2007, he started his own firm, the Law Office of Richard L. Williams, P.C., and in 2009 merged his practice with Joseph McMahon to form the law firm of McMahon | Williams. On January 1, 2011, he founded Griffin | Williams, LLP with Patrick M. Griffin and Robert K. Villa. He is also the former President of the Mill Creek Water Reclamation District.

Together, Mr. Griffin and Mr. Williams have handled a multitude of complex real estate transactions in Illinois and nationally covering literally every aspect of the real estate development process. In doing so, they have advised private interests, municipalities, school districts, fire protection districts, township road districts and regional transportation authorities, among other stakeholders.

Representative Projects

- *Kane County, Illinois Subdivisions.* Represented local developer in obtaining zoning, subdivision and final plat approvals for several unincorporated master-planned communities including over 1,000 residential units. The approvals also included annexations to the Wasco Sanitary District. Projects included the Fox Mill, Prairie Lakes and Fox Creek Subdivisions.
- *DeKalb County, Illinois Subdivisions.* Represented local developer in obtaining annexation, zoning, subdivision and final plat approvals with the City of Sycamore for several master-planned communities including over 1,000 residential units. Projects included the Heron Creek and Sycamore Creek Subdivisions.
- *Elburn, Illinois Subdivision.* Represented local developer in obtaining annexation, zoning, subdivision and final plat approvals with the Village of Elburn for the Blackberry Creek Subdivision, consisting of over 1,000 residential units.
- *Elgin, Illinois Subdivision.* Represented local developer in obtaining annexation, zoning, subdivision and final plat approvals with the City of Elgin for the Stonebrook Subdivision, consisting of over 600 residential units.
- *Batavia, Illinois Annexation.* Represented Moose International in connection with obtaining annexation and zoning approvals with the City of Batavia in connection with approximately 470 acres of Randall Road frontage.
- *Union Pacific Commuter Line Expansion.* Primary outside counsel representing Commuter Rail Division of the Regional Transportation Authority with respect \$103 million track and service expansion along an eight mile stretch in Kane County, Illinois. Obtained rezoning and planned unit development approvals, as well as negotiating a development agreement, for a 50+ acre passenger station and commuter coach yard from a Kane County, Illinois municipality. Successfully negotiated with the Kane County's chief executive and staff to

obtain approvals of new station and commuter parking.

- *New Lenox Passenger Station (Will County, Illinois).* Represented the Commuter Rail Division of the Regional Transportation Authority in the acquisition of land in a Transit Oriented Development for the new Laraway Road station, as well as the final plat and engineering approval of the station building before the New Lenox Village Board.
- *Peaker Power Plant (DuPage County, Illinois).* Successfully represented international energy company in the zoning and site plan approval of controversial 875 megawatt natural gas “peaker” power plant in DuPage County, Illinois.
- *1,600 Acre Industrial Park.* Counsel for master developer of 1,600 acre industrial development. Represented client with respect to Planned Unit Development Agreement, preliminary and final plan approval for end users, and ancillary development issue.
- *Will County, Illinois Subdivisions.* Represented Master Developer of 1,000 + unit residential subdivision and 55 acre commercial development in municipality in southwest Will County. Negotiated Annexation and Development Agreements, rezoning of property, municipal incentive agreement, and obtained preliminary and final plat approval.
- *\$26,000,000 Special Service Area Financing (Manhattan, Will County, Illinois) - July, 2007.* Developer counsel in connection with the issuance of a \$26,000,000 special service area bond issuance for the financing of public improvements for several subdivisions.
- *Municipal Zoning Challenge (Kane County, Illinois).* Successfully defended village in challenge by large developer to a village’s denial of zoning of residential property.
- *Industrial Park Zoning (Shorewood, Will County, Illinois).* Represented large industrial developer in the annexation and zoning of a hotly contested 50+ acre industrial development along I-55 in Shorewood, Illinois. Project was approved despite hundreds of objectors present at the public hearing.
- *Mountain Home, Arkansas Lowe’s Site.* Represented developer in the acquisition, zoning, and sale of a 30 acre commercial development anchored by Lowe’s Home Centers.
- *Trails of Black Mountain (Bullhead City, Arizona).* Represented developer in the acquisition and zoning of 1,600 unit residential subdivision. Advised and counseled developer with respect to development issues, including flood plain (jurisdictional wash), water rights and platting issues. Negotiated development agreement with municipality.
- *22 Acre Agricultural Distribution Center (Wilmington, Illinois).* Represented mid-sized international agricultural company with respect to the acquisition, annexation and zoning approvals for an agricultural distribution facility.

Richard L. Williams

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rwilliams@gwillplaw.com

Richard L. Williams is an experienced attorney whose professional background includes both private law firm and in-house corporate counsel experience. His clients include municipalities and units local government, individuals, partnerships, not-for-profits, homeowners associations, and small to mid-sized businesses on a wide array of matters including corporate, commercial and residential real estate, land use and zoning, estate planning and administration, and select civil litigation.

He regularly counsels businesses, from small start-up ventures to medium sized business, on a diverse range legal and operational matters including entity formation, employment issues, mergers and acquisitions, assets sales, partnership and shareholder disputes, buy-sell agreements, corporate governance and general business matters.

During the course of his career, he has handled numerous complex real estate transactions in Illinois and nationally, and all aspects of land development including contract negotiation, annexation and development agreements, rezoning, planned unit developments, drainage issues and municipal financing and tax incentives. He has served as counsel for numerous local and national developers, builders and retailers on residential, commercial, and mixed-use development projects ranging in size from less than one acre to thousands of acres. His development projects include extensive involvement with numerous municipalities in the collar counties of Chicago, as well as projects in Arkansas, Arizona, Indiana and Michigan.

He has also represented and advised various municipalities, school districts, and units of local government in the budget and levy process; boundary disputes; annexation of territory; zoning and land use matters; the negotiation and drafting of Annexation Agreements, Development Agreements and Planned Unit Developments; *Quo Warranto* and *Mandamus* proceedings; territorial disconnections; as well as served as Village Prosecutor for several municipalities. He has provided guidance for compliance with respect to the Open Meetings Act and Freedom of Information Act; general municipal and corporate matters; and, general municipal litigation. He has counseled clients with respect to compliance with the Illinois Campaign Disclosure Act. He also represents the Commuter Rail Division of the Regional Transportation Authority in transactional and land use matters.

Rick's legal career began with a small Kane County law firm where he engaged in the general practice of law and concentrated in municipal and real estate development. He was a partner at Rooks Pitts and Poust and later at Dykema Gossett, PLLC, a national law

firm. He also served as a managing attorney for a fortune 500 energy company, as well as general counsel for a small land development company. In 2007, he started his own firm, the Law Office of Richard L. Williams, P.C., and in 2009 merged his practice with Joseph McMahon to form the law firm of McMahon|Williams. On January 1, 2011, he founded Griffin|Williams, LLP with Patrick M. Griffin and Robert K. Villa, who has since been elevated to a Judge with the 16th Judicial Circuit. He resides with his family in Geneva, Illinois.

Recognizing that the practice of law is fundamentally about helping people work through problems and planning for the future, Rick also enjoys assisting clients with their unique legal needs, including estate planning and administration, traffic and misdemeanor criminal matters, adoptions, and personal real estate needs. He is former President of the Mill Creek Water Reclamation District, and is currently a trustee for the Kane County Regional Board of School Trustees.

Education

University of Illinois, Urbana-Champaign
Bachelors of Arts, History - 1992

Northern Illinois University College of Law
Juris Doctor – 1995

Admissions

Illinois
United States District Court – Northern District of Illinois
United States District Court – Central District of Illinois

Professional Associations

American Bar Association
Illinois State Bar Association
Kane County Bar Association
Geneva Chamber of Commerce

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Mr. Griffin's professional background includes both private practice and in-house counsel experience. He represents a wide array of business interests ranging from closely held start-ups to large, national corporations. In addition to counseling his business clients on issues such as entity choice and formation, mergers and acquisitions, private placements and business litigation issues, Mr. Griffin places a particular emphasis on representing clients with their real estate needs, including residential and commercial sales and acquisitions, zoning and subdivision applications, annexation and disconnection petitions and all other aspects of the land development process, from initial land acquisition through entitlements, construction and sales. He also counsels clients on the formation and continued representation of homeowners and condominium associations.

Mr. Griffin obtained his undergraduate degree, a B.S. in Architecture, from the University of Illinois at Urbana-Champaign. After graduating from the University of Illinois in 1991, he worked as the Director of Alumni Relations for his college fraternity, Phi Kappa Tau, at its national headquarters at Miami University in Oxford, Ohio. He then attended law school at the Northern Illinois University College of Law where he served as Editor-in-Chief of the Law Review. Upon graduating from law school in 1995, Mr. Griffin began his legal career with the long-standing local Kane County firm of Shearer, Blood, Agrella & Boose in St. Charles. Mr. Griffin remained with that firm (and various successor firms) until 2011, when he joined with Robert Villa and Richard Williams to form Griffin | Villa | Williams LLP. From 2006 through 2010, Mr. Griffin also served as Vice President and General Counsel to B&B Enterprises Land Developers, a veteran local real estate development firm with over 20 years of experience developing dozens of residential and commercial projects, primarily in Kane and DeKalb Counties.

Education

University of Illinois at Urbana-Champaign

Bachelor of Science, Architecture – 1991

Northern Illinois University College of Law

Juris Doctor – 1995

Admissions

Illinois

U.S. District Court, Northern District of Illinois

Professional Associations

American Bar Association

Illinois Bar Association

Kane County Bar Association

Military Service

Illinois Army National Guard

233rd Combat Engineer co.

Honorable Discharge, Staff Sergeant – 1994

Personal

Mr. Griffin grew up in the south suburb of Chicago Heights where he attended Homewood-Flossmoor High School. He has lived in the St. Charles area since 1995. He has been married to his wife, Sarah, since 1997 and they have four children, Patrick, Grace, Leah and Jack.

Community

Mr. Griffin has been a member of the St. Charles Kiwanis Club since 1995 and served as its President from 2000 to 2001. He assists coaching in the Tri-City Chargers Youth Football, Wasco Youth Baseball and St. Charles Storm Youth Basketball programs.



Project Experience

ERA's Stormwater Management Ordinance Review and Revision Experience

ERA has had the opportunity to develop an extensive resume of successfully completed ordinance and technical guidance manuals. ERA has also performed stormwater and environmental permit reviews, designed stormwater and environmental projects, assisted communities with stormwater management and drainage law application. Through our experience with stormwater and environmental programs and ordinances in McHenry County, Kane County, DuPage County, Will County, Cook County, and Lake County, we have developed a solid reputation as one of the leading stormwater engineering and environmental consulting firms in the Chicagoland area.

Below is a summary of ERA's recent projects that demonstrate our experience and capabilities relevant to this contract.

A project description and client contact information for each project may be found on the following pages:

Stormwater and Environmental Regulation

- MWRDGC - Cook County Watershed Management Ordinance & Technical Guidance Manual
- Village of River Forest - Stormwater Management Ordinance Comprehensive Review and

Revision

- DuPage County - Stormwater Best Management Practices Manual and Ordinance

Revisions

- Illinois Department of Transportation - Statewide BMP Manual and Training Program
- Village of Lily Lake Subdivision Ordinance
- Village Engineering Services, Glen Ellyn
- Village Engineering Services, Downers Grove
- Calumet City and Lansing Flood Management and Community Rating System Services
- Review Services, Various communities



Cook County Watershed Management Ordinance and Technical Reference Manual

Metropolitan Water Reclamation District of Greater Chicago



Project Summary

ERA was retained to develop the first comprehensive, countywide watershed management ordinance for Cook County. The WMO regulates over 130 communities of diverse economic backgrounds and includes stormwater, floodplain, and water quality standards for new construction. Services include white paper research and coordination with stakeholders, watershed planning organizations and governmental agencies in the development of the ordinance. The ordinance was tailored to the unique physical and social geographic features of Cook County to ensure that future development would not contribute to flooding or water quality degradation. In addition the project included writing the ordinance technical guidance manual as an aid to the implementation of the ordinance.

ERA Project Team

Jon Green, PE, CFM | President/Project Director
John Mayer, PE, CFM | Principal/Project Engineer
Erin Pande, PWS, CFM | Ecological Services Director
Marty Michalisko, PE, CFM | Principal/Senior Water Resource Engineer



Project Highlights:

- ERA coordinated with stakeholders, watershed planning organizations and governmental agencies throughout development of the ordinance
- Over 130 communities are regulated by the WMO
- Includes stormwater, floodplain, and water quality standards

Project Reference:

William Sheriff
Supervising Civil Engineer
MWRDGC
111 East Erie Street
Chicago, IL 60611-3154
Phone: (312) 751-3169
Email: william.sheriff@mwrdd.org



Stormwater Management Ordinance Comprehensive Review and Revision

Village of River Forest, IL



Project Summary

ERA was retained to work closely with Village staff, to review and revise the River Forest Stormwater Management Ordinance (SMO). Adopted in 1986, the SMO served as the primary instrument for regulation of stormwater throughout the Village. Following adoption of the Metropolitan Water Reclamation District (MWRD) countywide Watershed Management Ordinance (WMO), the SMO and WMO had conflicting regulations. Enforcement of the regulations was complicated by inconsistencies in terms, definitions and standards. The inconsistencies caused difficulties for property owners, developers and consultants to obtain permits.

ERA worked with Village staff to prepare a revised ordinance consisting of appropriate stormwater and water resource management requirements that represent the minimum standards necessary to prevent increases in flooding, prevent water quality degradation, and reduce stormwater runoff volumes. The revised SMO is consistent with MWRD's WMO, Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP) and Community Rating System (CRS), Illinois Environmental Protection Agency (NPDES) requirements.

ERA Project Team

Erin Pande, PWS, CFM | Project Manager
Marty Michalisko, PE, CFM | Principal/Project Director
Jennifer Loewenstein, PE, CFM, CPESC | Senior Project Engineer
Andrew Kustusich, PE, CFM | Environmental Engineer
Cody Frovarp | Public Outreach Coordinator



Project Highlights:

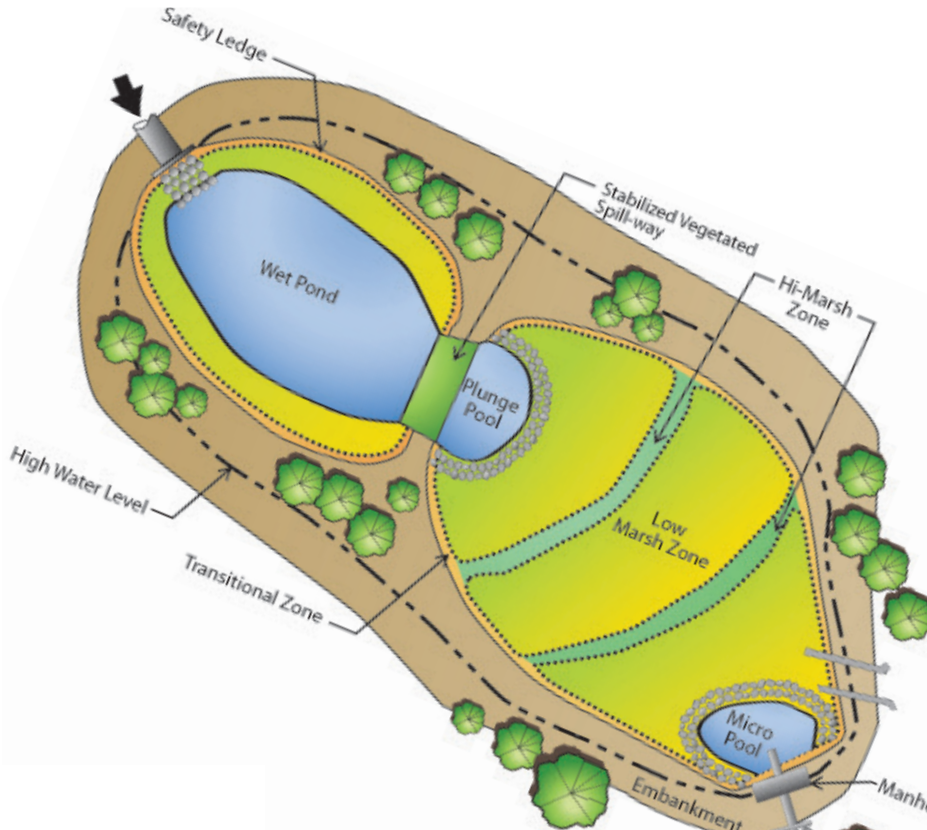
- ERA completed SMO Review and Revisions
- ERA revised Stormwater Ordinance consistent with MWRD, FEMA, NFIP, CRS, NPDES Requirements
- ERA worked closely with the Village staff to completed this assignment

Project Reference:

Jeff Loster
Village Engineer
Village of River Forest
400 Park Avenue
River Forest, IL 60305
Phone: (708) 714-3551
Email: jloster@vrf.us

Completed:

2016

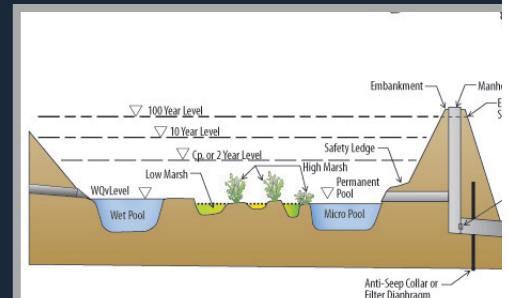
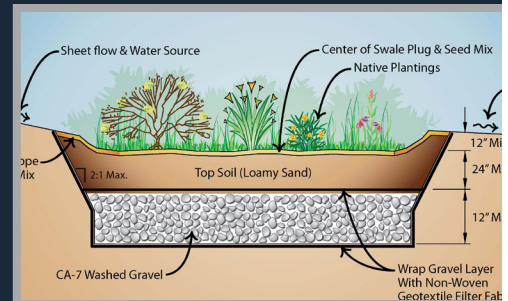


Project Summary

ERA drafted a water quality best management practices manual for DuPage County. The manual serves as technical guidance under the countywide stormwater ordinance which regulates an urban population of about 1M. ERA was selected for our expertise and experience as primary review consultant for the County's Stormwater Management Permits and our strong environmental division. Challenges included writing a manual that addressed the County's physical and social geographic characteristics and winter weather conditions. ERA chaired review meetings with several stakeholder groups, prepared necessary ordinance changes, and provided educational seminars for municipalities affected by the new provisions.

ERA Project Team

Erin R. Pande, PWS, CFM | Ecological Services Director
Rodney A. Beadle, PE, CFM | President / Project Director



Project Highlights:

- Drafted the DuPage County Best Management Practices (BMP Manual) for implementation under the DuPage County County-wide Stormwater and Floodplain Ordinance
- ERA staff presented recommended practices that offered effective solutions while remaining sensitive to maintenance costs
- ERA chaired stakeholder meetings and led educational seminars

Project Reference:

Nicholas W. Kottmeyer, PE
Director of Public Works
DuPage County
Department of Public Works
421 N. County Farm Road
Wheaton, IL 60187
Phone: (630) 407-6804
Email: nkottmeyer@dupageco.org

BDE Chapter 59-8 Manual Revision

Illinois Department of Transportation



Project Summary

ERA provided an update of departmental policies and procedures including Chapter 59-8 of the BDE Manual and prepared a training course on NPDES compliance with an emphasis in Stormwater Pollution Prevention Plan (SWPPP) preparation. Educational materials were also developed to train IDOT staff and to assure that requirements of the ILR10 and ILR40 permits issued to IDOT are implemented on department construction sites.

Updated Chapter 59-8 of the BDE Manual

- Reviewed existing IDOT design and field procedures/practices relating to Erosion and Sediment Control (ESC) on construction sites.
- Reviewed current version of Chapter 59.8 for compatibility with current ILR10 requirements and for compliance with IDOT's current ILR40 permit.
- Researched ESC measures used by other transportation departments that were appropriate for use on IDOT projects.
- Revised Chapter 59.8 to provide more specific requirements and guidance in selecting and designing appropriate ESC measures
- Selection of ESC measures are dependent on project and site parameters including slopes, soil types, soil particle size, flow rates, flow types (sheet or concentrated), and time of year. Specific design criteria were included in the chapter.
- Provided a guidance section within the revised manual for development of a comprehensive SWPPP.
- Revised BDE Form 2342 (SWPPP) to conform to revised BDE manual.



ERA Project Team:

Erin R. Pande, PWS, CFM
Ecological Services Director

Rodney A. Beadle, PE, CFM
Project Director

Project Reference:

Rick Wanner
Bureau of Maintenance
Roadside Development
Phone: (847) 705-4172
Email: Rick.wanner@illinois.gov

Construction Cost:

N/A

Completed:

2013



Village Consulting Engineer Services

Village of Lily Lake, IL



Project Summary

ERA has provided the Village of Lily Lake consulting engineering services from its initial inception as a village in 1994. ERA worked closely with a planning consultant to draft and adopt the Subdivision Control Ordinance, roadway standards, and a 10-Year Roadway Capital Improvement Plan. In addition to numerous minor developments, ERA has overseen the planning, engineering, and construction of several large subdivision developments within the Village.

ERA Project Team

John F. Mayer, PE, CFM | Principal / Project Manager
Rodney A. Beadle, PE, CFM | President / Project Director
Marty Michalisko, PE, CFM | Senior Project Engineer
Andrew Kustus, EI, CFM | Project Engineer

Project References:

Jesse Heffernan
Village President
Village of Lily Lake
43W955 Twilight Lane
St. Charles, IL 60175
(630) 365-9677

Erik Hoofnagle
Public Works Director
Village of Lily Lake
43W955 Twilight Lane
St. Charles, IL 60175
(630) 365-9677

Project Highlights:

- ERA provided preliminary and final subdivision plat review, preliminary and final engineering plan review, construction observation and as-built review and final approval
- ERA provided stormwater and floodplain management services along with wetland management oversight responsibilities
- Staff worked closely with the State and County Highway Departments to coordinate various roadway improvement projects and offer recommendations to the Village regarding general engineering issues



Village Engineering Services

Village of Glen Ellyn, IL



Project Summary

Since 1998, ERA has provided site plan review services for development projects in the Village of Glen Ellyn. In 2005, ERA's scope was expanded to include review of all residential, commercial, industrial and institutional site development projects. This includes review of both preliminary site plans and final site plans. As part of the final site plan review, site inspections are completed to ensure compliance with the approved site plan. ERA also reviews estimates of probable construction cost to establish letters of credit and reviews requests for reduction in letters of credit. Recently, ERA has reviewed all College of DuPage developments. This was agreed to by both the college and village in response to a request for fair and consistent reviews.

ERA Project Team

Marty Michalisko, PE, CFM | Principal/Project Manager
John Mayer, PE, CFM | Project Director
Erin Pande, PWS, CFM | Ecological Services Director
Jennifer Loewenstein, PE, CFM, CPESC | Water Resource Engineer
Mike Maslowski, PE, CFM | Project Engineer

Project Highlights:

- ERA reviews plats of subdivision to ensure compliance with village requirements and state statutes
- Staff assists homeowners, design engineers, and village staff in the planning and construction of new projects to ensure compliance with village, county, state and federal codes
- ERA receives and responds to residential drainage concerns throughout the village
- Attendance at public meetings including plan commission and public hearings, and bi-monthly staff meetings to coordinate the permit review process

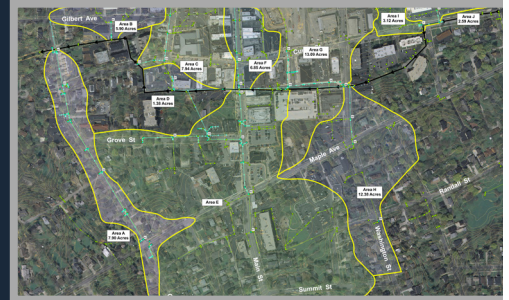
Project Reference:

Staci Hulsberg
Director of Planning and Development
Village of Glen Ellyn
Public Works Department
30 South Lambert Road
Glen Ellyn, IL 60137
Phone: (630) 547-5240
Email: shulseberg@glenellyn.org



Village Engineering Services, Floodplain, and Site Development Consultant

Village of Downers Grove, IL



Project Summary

ERA provides site plan review services for development sites throughout the Village of Downers Grove. Site plans vary from single family homes to large commercial properties and college campuses. This includes a review of both preliminary and final site plans and subdivision developments. ERA also performs reviews of special use permits, variances and zoning changes and provides a professional opinion to the Village of Downers Grove for approving such requests. Services provided to the Village of Downers Grove include on-call technical review services for compliance with drainage, stormwater, floodplain, wetland, erosion control and best management practice issues associated with construction projects within the Village boundaries.

ERA's responsibilities include review of development projects for compliance with both DuPage County and the Village Stormwater and Flood Plain Ordinance and coordination with county, state and federal agencies. Site visits are conducted to ensure compliance and verify proposed conditions. Upon completion of construction ERA's staff reviews the as-built conditions to ensure compliance with the approved plans. This task includes reviewing detention volumes, compensatory storage quantities, grading, wetland impacts and best management practice implementation. In addition, ERA may be called upon to perform other stormwater and environmental consulting services.

ERA Project Team

John Mayer, PE, CFM | Principal/Project Manager
Jon Green, PE, CFM | President/Project Director
Jacob Wolf, PE | Principal/Project Engineer
Marty Michalisko, PE, CFM | Principal/Lead Water Resource Engineer
Michael Maslowski, PE, CFM | Project Engineer
Andrew Kustus, PE, CFM | Project Engineer
Erin Pande, PWS, CFM | Ecological Services Director

Project Highlights:

- Responsibilities include review of development projects for compliance with the established Village Stormwater and Flood Plain Ordinance and coordination with county, state and federal agencies
- Task includes reviewing detention volumes, compensatory storage quantities, grading, wetland impacts and best management practice implementation
- In addition, ERA may be called upon to perform other stormwater and environmental consulting services

Project Reference:

Jim Tock, PE
Staff Engineer
Village of Downers Grove
5101 Walnut Avenue
Downers Grove, IL 60515
Phone: 630-434-2453
Email: jtock@downers.us

2013 Lisle Flood Assistance and HMGP Grant Application

Village of Lisle, IL

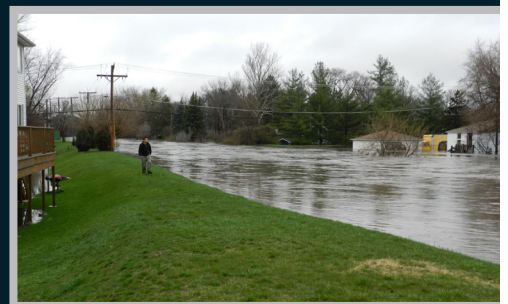


Project Summary

ERA provided emergency flood assistance following the April 18, 2013 flood event. Following acceptance of the HMGP pre-application ERA was selected to prepare the full grant application which is administered through IEMA. The project tasks included: reconnaissance of flood damaged area; verification of lowest opening first floor elevation and lowest adjacent grade to determine the depth of first floor flooding; elevation surveys and structural inspections for structures to be elevated; and site inspections of all properties to be acquired. ERA participated in numerous meetings with Village Staff, stakeholders and the public. These meetings served to disseminate information so that property owners could choose to participate in the application and subsequent project and provide the Village with a Voluntary Statement of Interest. Based upon property owner participation, ERA assisted the Village in prioritizing properties for acquisition/elevation, compiling associated data for entry into the federal e-grants to acquire mitigation funds. This project was fast tracked due to the application deadline. The Village was awarded \$3 Million in HMGP grant funds.

ERA Project Team

John Mayer, PE, CFM | Principal/Project Manager
Marty Michalisko, PE, CFM | Principal/Lead Water Resource Engineer
Erin Pande, PWS, CFM | Ecological Service Director
Jake Wolf, PE | Principal/Senior Project Engineer
Andrew Kustus, PE, CFM | Environmental Engineer



Project Highlights:

- Meetings to educate stakeholders and public about HMGP funds, the process, and solicit participation
- Elevation certificates & depth of first floor flooding verification
- Structural inspection of homes to be elevated
- Prioritization of grant participants

Project Reference:

Marilyn Sucoe, PE, CFM
Staff Engineer/Stormwater
Administrator
925 Burlington Avenue
Lisle, IL 60532-1888
Phone: (630) 271-4107
Email: msucoe@villageoflisle.org

Construction Cost:

\$8.4 Million

Consulting Fee:

\$83,000

Completed:

2013



Review Consultant Services

Various Municipal Locations, IL

ERA provides site plan review services for various municipalities across Illinois. Below are examples of some of the projects ERA has been involved in.

City of Batavia Permit Reviews

Many new developments within the City of Batavia are required to have detention with a retention component or best management practice, such as rain gardens or bioswales per the Kane County Stormwater Ordinance. In order to ensure these components are functioning as intended after installation they need to be reviewed and inspected. In order to meet the Ordinance requirements ERA performs the following services for the City of Batavia: permit reviews, inspections during construction and after completion, and annual vegetation monitoring inspections and reporting to determine permit compliance in order to obtain signoff and closeout project permits.

Client Contact: Andrea Podraza, Civil Engineer, (630) 454-2757

McHenry County Stormwater and Subdivision Review Consultant

ERA was responsible for the expedited reviews of permit applications for compliance with the McHenry County Stormwater Management Ordinance and other relevant Federal, State, and local laws and ordinances in situations where applicants are willing to pay directly for such reviews. We were also responsible for performing supplementary reviews of permit applications for compliance with the McHenry County Stormwater Management Ordinance and other relevant Federal, State, and local laws and ordinances.

Client Contact: Kim Masura, Stormwater Engineer, (815) 334-4560

DuPage County Stormwater Permit Reviews and Audits

Since 1995, ERA has served as the primary consultant providing review services for the conformance of permit submittals with the requirements of the DuPage County Stormwater and Flood Plain Ordinance. Over the course of our review contract, ERA has completed thousands of site reviews. Our broad experience with several stormwater modeling and analysis programs has helped to expedite reviews. Our scope of services has been expanded several times to also incorporate community audit reviews, facilitating pre-application meetings, general public assistance, and comprehensive review of all aspects of development and municipal projects.

Client Contact: Clayton Heffter, Stormwater Permitting Manager
(630) 407-6729

Village of Bensenville Review Consultants

ERA provides stormwater, floodplain, wetland and BMP review services for the Village of Bensenville on an as-requested basis. ERA provided professional assistance to the Village to explain how 2012 revisions to the Countywide Ordinance impact new developments. ERA has recently been tasked with performing an internal audit of 12 old and open permits from 2001-2008. This task entailed wetland inspection and reports and identification of critical permitting tasks that were never completed by bankrupt developments.

Client Contact: Mehul Patel, PE, Assistant Director of Public Works
(630) 594-1196



ERA Project Team

Marty Michalisko, PE, CFM
Project Manager

John Mayer, PE, CFM
Project Director

Erin Pande, PWS, CFM
Ecological Services Director

Jennifer Loewenstein, PE, CFM, CPESC
Senior Project Engineer

Andrew Kustus, PE, CFM
Environmental Engineer

Review Consultant Services (Continued)

Various Municipal Locations, IL

City of Elgin Reviews 2013

ERA provides review assistance and advises the City in storm water and engineering matters including: soil erosion and sedimentation control, storm water runoff, tree surveys, water quality, flood plain, wetlands, storm sewers, open channels, and all generally accepted engineering improvements. ERA's work includes general review of the preliminary and final plans, plats, storm water submittals and supporting documents. Additionally, ERA will represent the City relative to property conveyance, homeowners associations, conditions and restrictions, operation manuals, maintenance responsibilities for the public or quasi-public infrastructure improvement.

Client Contact: Ron Rudd, City Engineer II, (847) 931-6081



City of Warrenville Wetland & BMP Review Consultants

ERA provides review services for projects to enforce the standards of the DuPage County Countywide Stormwater and Flood Plain Ordinance with regard to wetlands, riparian areas and BMP's and permit process with federal and state agencies involved in wetland permitting. ERA meets with landowners, design consultants and contractors to coordinate the permit review/inspection process. ERA also provides native landscape monitoring services and prepares annual monitoring reports documenting the compliance status of each site with regard to the success criteria. Sites include: Home Avenue Road Improvements, Sesqui Park, Aurora Way and Landon Avenue Road Improvements, and Meadow Avenue Pedestrian Bridge and Pathway.

Client Contact: Philip M. Kuchler, Senior Civil Engineer, (630) 836-3033



Village of Carol Stream Review Services

ERA provides stormwater, floodplain, wetland and BMP review services for the Village of Carol Stream on an as-requested basis. Carol Stream strives to provide outstanding customer service and asks their consultants to work with the applicant. ERA guides applicants through the permit process to great satisfaction of the village.

Client Contact: Bill Cleveland, Assistant Village Engineer, (630) 871-6220



City of Wheaton BMP Review Consultants

ERA provides Best Management Practice review services for the city on an as-requested basis. Reviews have included businesses and single family residential developments where BMPs are required.

Client Contact: Joe Tebrugge PE, Development Engineer, (630) 260-2868



Project Understanding

Kane County desires to retain a qualified consultant to review and revise the Kane County Stormwater Management Ordinance (SMO). Adopted in 2001, the SMO has served as the primary instrument for regulation of stormwater, floodplain and wetlands across Kane County. Over the past sixteen years, many changes have occurred in stormwater technologies and our understanding of effective stormwater management. Further, enforcement of the regulations has been complicated by inconsistencies in terms, definitions and standards. The inconsistencies have caused difficulties for property owners, developers and consultants in complying with the regulations.

A significant portion (50%) of Kane County is in agricultural production. Agricultural related items such as drain tiles, farmed wetlands, agricultural program rules and regulations should be considered in the SMO revisions. For example, concentrated discharge from development onto agricultural lands where sheet flow had previously existed causes erosion. Also, the County is heavily tiled and the construction of modern stormwater management facilities often overwhelm receiving drain tile systems that are old and inadequately sized for the additional concentrated flow. This ordinance revision should carefully evaluate the relationship between modern stormwater management facilities and existing drain tile systems.

The County has recently adopted several plans including the Kane County 2040 Plan and Kane County Green Infrastructure Plan. In addition, the Illinois Environmental Protection Agency (IEPA) has adopted additional water quality requirements in 2016. These plans and regulations call for further protection of the quantity and quality of stormwater beyond what the current ordinance requires.

Careful consideration is needed in determining the location where volume control and infiltration requirements are implemented. Appropriate best management practices (BMPs) need to remove stormwater pollutants prior to infiltrating the groundwater as Kane County and many of its municipalities are dependent on groundwater as a potable water source.

Technical and administrative standards in the ordinance will need to be updated or refined to provide the applicant and reviewer with clear direction. Provisions for new technologies can be implemented when preparing the SMO revisions. These changes will lead to a more efficient stormwater management regulation resulting in consistent enforcement of regulations for each community in the County.

Kane County desires the revised SMO be completed within 15 to 18 months. The schedule is dependent upon timely reviews of the proposed SMO by outside agencies.

Roles of County Staff

ERA will work closely with the Kane County staff committee, Kane County Division of Environmental and Water Resource, Kane County Stormwater Management Planning Committee (KCSMPC), Technical Advisory Committee (TAC), Agricultural Subcommittee and other stakeholders to prepare a revised ordinance. The revision will consist of appropriate stormwater and water resource management requirements that represent the minimum standards necessary to prevent increases in flooding, prevent water resource degradation due to development, and protect water recharge areas while improving the quality of infiltrated stormwater.

ERA will be overseen by the Kane County Division of Environmental and Water Resource. The Division will:

- provide information regarding the existing ordinances, interpretations and procedures;
- provide direction regarding desired ordinance modifications;
- review draft reports and drafts of the SMO;
- facilitate public participation;
- facilitate reviews by the Kane County Building, Zoning and Planning, Kane County Health Department, Kane County Division of Transportation, Kane County State's Attorney Office, KCSMPC, Development Committee, Energy and Environment Committee, Executive Committee and County Board.

Document Management

ERA offers a web-based project management site, Basecamp, for use by staff, sub-consultants and other stakeholders. A single source correspondence, management of electronic files and tracking project milestones significantly improves the overall efficiency of the review and revision of the SMO. In addition, the Basecamp enables assignment of various permission levels and selected sections may be made available to different levels of users such as ERA staff, Kane County staff KCSMPC, TAC and other stakeholder groups.

Work Plan

As mentioned above and in the company experience section, ERA has developed other ordinances including the Cook County Watershed Management Ordinance (WMO). To help facilitate the development of the WMO, ERA prepared high level “white papers” for each section of the ordinance (i.e. floodplain, wetlands, volume control, etc.). One particularly useful white paper was the comparison of existing stormwater regulations throughout the collar counties. We would prepare a similar updated version for the SMO comparison of surrounding counties.

We recognize that white papers were likely not used in preparation of the original SMO; however, we strongly recommend using this approach in the revision the SMO. This method helps to maintain an organized process, facilitates high level decisions and documents why the decisions were made. The white papers can provide a crucial defense should a legal or political challenge occur. ERA’s experience with the WMO is that these papers can also assist in clarifying the reasons for proposed ordinance provisions internally and with stakeholders and are an excellent historic source for new County and municipal employees and other interested parties. Therefore we have incorporated the use of white papers into our proposed ordinance revision process for the Kane County. An example of a white paper from ERA’s work on the Cook County WMO is provided at the end of this section.

Based on the provided scope of services ERA proposes the following approach in revising the current SMO:

1. SMO Review Report – ERA will review the current SMO and Technical Manual, various

County Plans, state and federal regulations, and interview various groups identified below to identify issues with the existing regulations. Following completion of the review and interviews, ERA will compile a report outlining the purpose and objectives of the ordinance revisions and an analysis of each section of the ordinance and each section's associated issues.

- a. Kick-Off Meeting – ERA will meet with County staff to kick-off the project and discuss the process, schedule, review the roles of consultant and county staff.
- b. Independent Review – ERA will independently review the current SMO to identify inconsistencies in terms, definitions and standards and the need for addition, expansion or deletion of sections of the ordinance. ERA will also review the following documents: Kane County 2040 Plan, Kane County Green Infrastructure Plan, Kane County Stormwater Ordinance markup (provided by county staff), Kane County Stormwater Management Plan, FEMA NFIP, IDNR State Model ordinance, CRS Classifications, IEPA NPDES, surrounding county ordinances including McHenry, Lake, DuPage and Cook. These documents will be used to identify purpose and direction for the SMO revisions.

Additionally, an initial review will be performed by BRONNER, the professional editor, to evaluate the overall structure to determine if any modifications are recommended.

- c. Interview with Groups - ERA will meet with the groups mentioned below to review the existing SMO. The items to be discussed at the interviews are as follows:
 - i. Obtain input as to either deleting or expanding parts of the ordinance to

better fit the current program goals of the County;

- ii. Discuss the areas where there have been concerns with the technical aspects and administration of the ordinance. These concerns may require a change to an ordinance standard or may require a clarification to the ordinance language to allow for a more consistent interpretation of the ordinance standard;
- iii. Review the existing SMO with respect to existing agency requirements including the Federal Emergency Management Agency, U.S. Army Corps of Engineers, Illinois Department of Natural Resources-Office of Water Resources and the Illinois Environmental Protection Agency;
- iv. Obtain interpretations made by Certified Communities;
- v. Identify the enforceable aspects of the Technical Manual for inclusion in the SMO; and
- vi. Discuss permit submittal and review requirements
- vii. We anticipate this task to be accomplished by the following pairing of group meetings:
 1. County Staff - three (3) 2-hour meetings
 2. TAC and Agricultural Subcommittee – five (5) 2-hour meetings. ERA will develop agendas and direct the meetings with TAC. One meeting for each topic as follows:
 - a. Stormwater;
 - b. Floodplain/Floodway;
 - c. Wetland/Buffers;

- d. BMP's/Soil Erosion/Sediment Control;
 - e. General/Enforcement.
3. Kane County Stormwater Management Planning Committee – one (1) 2-hour meeting
4. Stakeholder – one (1) 2-hour meeting. We anticipate this group consisting of county and township roadway agencies, municipal representatives, developers, consulting engineers, agricultural representatives, environmental organizations, watershed groups, natural resource agencies and other interest groups and property owners.

Minutes for all meetings will be prepared to summarize the discussions and document input received.

- d. ERA will prepare a survey, accessible through the website/blog, for public and private parties to take part in. Further details regarding the web survey may be found in the public outreach section below.
 - e. ERA will compile a spreadsheet of comments to document the input received during this task. Each comment will be cataloged to identify the group from whom the comment was received, to identify the corresponding ordinance sections, to identify whether the comment is to add, modify or delete content. Key words will be incorporated for easy sorting and filtering.
2. SMO Revision Recommendations Report – ERA will develop a report proposing solutions for the issues identified in the SMO Review Report.

- a. ERA will work closely with the County staff to determine if any new major regulatory component or major revision to a specific section of the current ordinance should be adopted in the revised SMO. In order to facilitate review of any new regulatory components or revamped sections, ERA will prepare high level “white papers” for each topic. Each white paper will include:
 - i. An introduction of the new regulatory component;
 - ii. Background as it pertains to Kane County;
 - iii. Analysis (Kane County approach vs. other national and local approaches);
 - iv. Recommendation to include or exclude the new regulatory component from the SMO; and
 - v. In the event that the recommendation is to include the new regulatory component, conceptual draft ordinance language will be prepared as an appendix to the white paper.
- b. Where high level white papers are not necessary for minor changes such as: definitions, typos, cross reference and grammatical errors, and areas that need further clarification, ERA will identify specific ordinance provisions identified in the SMO review Report and make recommendations as to how to modify the language to resolve the issue. We anticipate doing this by providing a copy of the ordinance in Microsoft Word with comment bubbles depicting where and what needs to be revised.
- c. ERA will review the proposed solutions with the County staff, TAC and Agricultural Subcommittee and KCSMPC to compile their comments and concerns. We anticipate that this will occur in three (3) separate 2-hour meetings.

- d. ERA will finalize the SMO Revision Recommendations Report based upon the county staff, TAC and Agricultural Subcommittee and KCSMPC comments.
3. SMO Revisions – ERA will revise the SMO as follows:
- a. ERA will prepare a first draft of the ordinance revisions per the SMO Review and Revision Recommendations Reports. The SMO will be revised using Microsoft Office Word with track changes function turned on. The modifications will be shown with underline font for new text and strikethrough font for deleted text. This will allow all parties to see items that have been deleted, added, moved and revised.
 - b. ERA will submit the revised ordinance to ERA's legal review sub consultant. The ordinance will be revised based upon their input and comments.
 - c. ERA will then submit the first draft of the revised ordinance to the County staff and the Kane County State's Attorney Office (SAO).
 - d. ERA will review the ordinance revisions with the County staff. We anticipate grouping segments of the ordinance and meeting with staff on several different occasions. We anticipate that this will occur in three (3) 2-hour meetings.
 - e. ERA will review the proposed revisions with the SAO. We anticipate that this will occur in one (1) 2-hour meetings.
 - f. ERA will prepare a second draft of the SMO based upon comments from the County staff, ERA's legal sub consultant and the SAO.
 - g. ERA will submit the revised ordinance to the County staff for dissemination to the TAC and Agricultural Subcommittee and KCSMPC. While not included in the scope of services in the request for proposal we feel that submittal to FEMA and IDNR-OWR

should also occur at this time. In other ordinances this review has occurred too late in the process and their regulations were incorporated as an appendix to the ordinance which makes it feel somewhat like an afterthought and not a cohesive part of the ordinance. In addition this may reduce review times later during the adoption of the SMO.

- h. ERA will review the ordinance revisions with the TAC and Agricultural Subcommittee in a combined meeting. We anticipate that this will occur in two (2) 2-hour meetings.
- i. ERA will review the ordinance revisions with the KCSMPC. We anticipate that this will occur in one (1) 2-hour meetings.
- j. ERA will prepare a third draft of the SMO based upon comments from TAC and Agricultural Subcommittee and KCSMPC, FEMA and IDNR-OWR.

4. SMO Adoption Assistance –

- a. ERA will participate in public hearings with KCSMPC. It is anticipated that up to two (2) 2-hour public hearings will be held.
- b. ERA will revise the draft language based upon public comments at the direction of the KCSMPC.
- c. The third draft of the ordinance will be reviewed by our legal review sub consultant and edited by our sub consultant, Bronner Group, LLC. While not included in the scope of services we feel that this is a very important aspect of the project. Document editing helps to finalize formatting, eliminate typos, broken hyperlinks and cross reference and grammatical errors.
- d. ERA will prepare a public comment response document.

- e. ERA will review the revised language with the SAO. We anticipate that this will occur in one (1) 2-hour meetings.
 - f. ERA will resubmit the revised SMO to IDNR and FEMA.
 - g. ERA will participate in KCSMPC and County Board review and adoption of the ordinance. We anticipate that this will occur in three (3) 2-hour meetings.
 - h. Upon adoption of the SMO, draft Technical Manual modifications that were noted throughout the process will be reviewed and updated to provide consistency with the SMO.
 - i. Modifications to the Technical Manual will incorporate new technologies that were identified, discussed and recommended through the review process.
5. Public Outreach - ERA brings a Public Relations Coordinator to the project. This individual combined with that of our key staff members experience bring formable capabilities for preparing presentations, FAQ's, social media, web surveys and educational publications. This task will be implemented through-out the duration of the process. Tasks to be completed by the Public Relations Coordinator are outlined below:
- a. SMO Revision Website – ERA will prepare a website/blog for interested parties to learn about the project, schedule, view reports and provide feedback.
 - b. Web Survey - ERA will prepare a survey, accessible through the website/blog, for public and private parties to take part in. The survey will be anonymous and ask questions pertaining to existing regulations (positive and negative) and request input for new ordinance sections.

6. Legal Review - ERA has teamed with Griffin | Williams LLP. Mr. Griffin will review the draft language at various times throughout the project. He will help ensure that the SMO complies with state and federal statutory and constitutional provisions. However, it is noted that the SAO retains the ultimate responsibility for providing the County with legal representation.

Deliverables

The following are the anticipated deliverables for each of the tasks described above:

1. Meeting Minutes
 - a. One (1) electronic PDF copy of the meeting minutes emailed within 1 week of each meeting for review and dispersion to meeting participants by County staff committee.
2. SMO Review Report
 - a. One (1) hard copy of the SMO Review Report
 - b. One (1) electronic Word Document copy of the SMO Review Report
 - c. One (1) electronic PDF copy of the SMO Review Report
3. SMO Revision Recommendations Report
 - a. One (1) hard copy of the SMO Revision Recommendations Report
 - b. One (1) electronic Word Document copy of the SMO Revision Recommendations Report
 - c. One (1) electronic PDF copy of the SMO Revision Recommendations Report
4. 1st Draft SMO
 - a. One (1) hard copy of the 1st Draft SMO

- b. One (1) electronic Word Document copy of the 1st Draft SMO
 - c. One (1) electronic PDF copy of the 1st Draft SMO
- 5. 2nd Draft SMO
 - a. One (1) hard copy of the 2nd Draft SMO
 - b. One (1) electronic Word Document copy of the 2nd Draft SMO
 - c. One (1) electronic PDF copy of the 2nd Draft SMO
- 6. 3rd Draft SMO and 1st Draft Technical Manual **(90% Complete Phase)**
 - a. One (1) hard copy of the 3rd Draft SMO
 - b. One (1) electronic Word Document copy of the 3rd Draft SMO
 - c. One (1) electronic PDF copy of the 3rd Draft SMO
- 7. Public Comment Response Document
 - a. One (1) hard copy of the Public Comment Response Document
 - b. One (1) electronic Word Document copy of the Public Comment Response Document
 - c. One (1) electronic PDF copy of the Public Comment Response Document
- 8. Final SMO and Final Technical Manual
 - a. One (1) hard copy of the Final SMO
 - b. One (1) electronic Word Document copy of the Final SMO
 - c. One (1) electronic PDF copy of the Final SMO
- 9. Website Preparation and Management
 - a. One (1) website prepared and maintained throughout the length of the project
- 10. Web Survey
 - a. One (1) hard copy of the Web Survey Results
 - b. One (1) electronic PDF copy of the Web Survey Results

Schedule

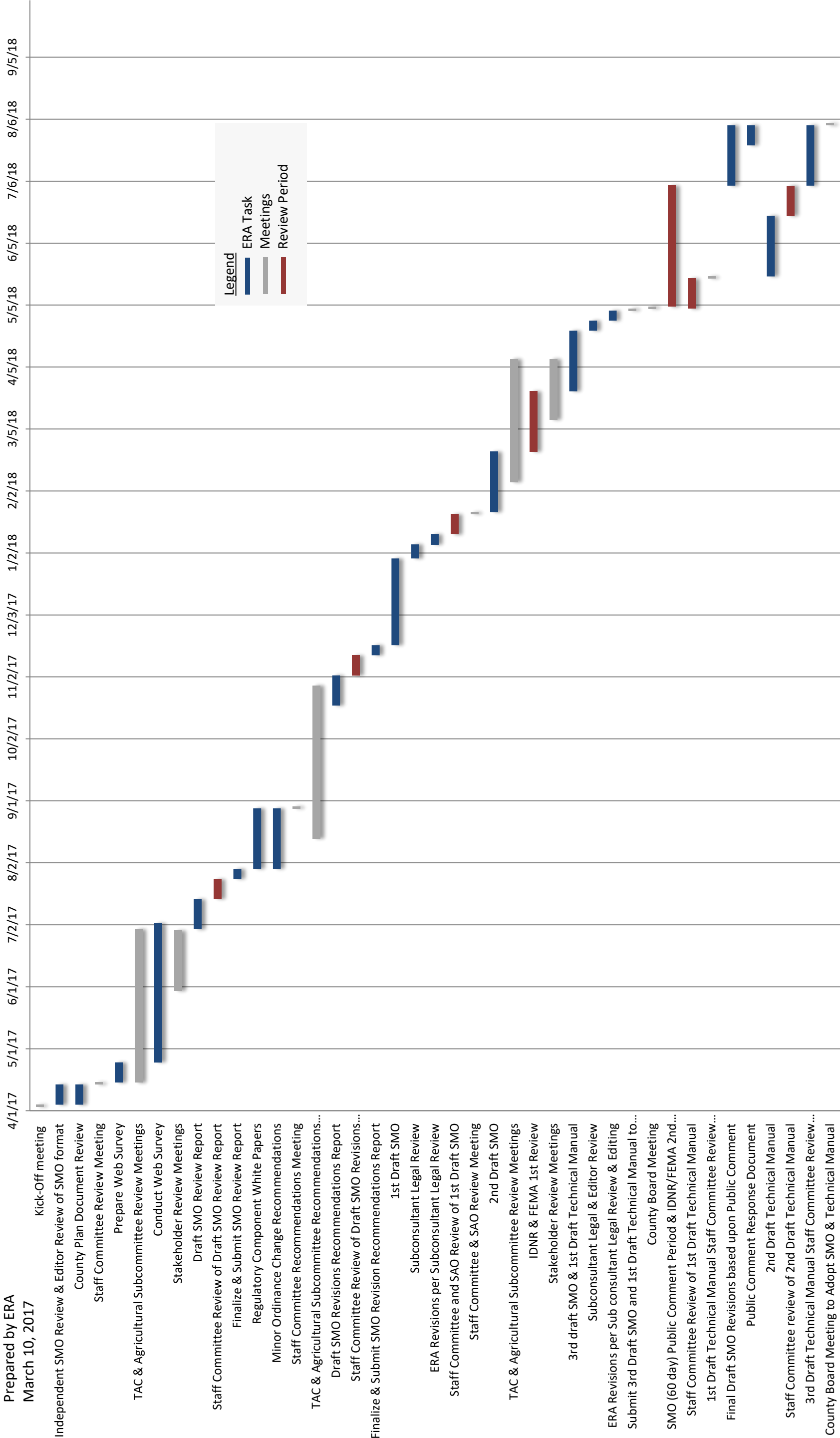
SMO review and revision services will be provided in accordance with the detailed project schedule provided on the following pages.

Staff availability to complete project

ERA has assembled a project team with adequate staff availability to successfully complete the Comprehensive Review and Revision of the Stormwater Management Ordinance. We have reviewed the scope, estimated hours, and anticipated schedule for the Comprehensive Review and Revision of the Stormwater Management Ordinance project together with other booked and anticipated projects. We hereby certify that we have the available personnel, equipment, and resources to complete the project on time and within budget.

All work on this assignment will be completed by locally available personnel working in the Chicago area including all of the personnel and sub-consultants listed in the staffing section of this proposal.

Project Schedule - RFP 10-017 Stormwater Management Ordinance





ENGINEERING
RESOURCE ASSOCIATES

Work Example

Work Example

Example of White Paper prepared by ERA in 2007 for the Cook County WMO ordinance process.



ENGINEERING RESOURCE ASSOCIATES, INC.
Consulting Engineers, Scientists, & Surveyors

MEMORANDUM

WMO REGULATORY REQUIREMENT RECOMMENDATION

DATE: August 17, 2007

TO: John Murray, Senior Civil Engineer, MWRDGC

FROM: Engineering Resource Associates, Inc.

RE: Stormwater Drainage and Detention

INTRODUCTION

Following a rainfall event, water infiltrates into the ground, evaporates or becomes runoff. Runoff travels along streets, gutters or low areas and makes its way to a river or stream. Much of the rainfall that reaches pervious areas (e.g., fields and lawns) infiltrates into the ground whereas nearly all of the rainfall that reaches impervious areas (e.g., roofs, driveways, and parking lots) becomes runoff. All land has a rainfall-to-runoff relationship; that is, for an area of land, a portion of rainfall becomes runoff. This rainfall-to-runoff relationship is the basis of stormwater management.

The single largest factor to affect the rainfall-to-runoff relationship is the amount of impervious area within the watershed. A higher percentage of impervious area in a watershed means that the total amount of runoff (volume) increases, and the speed or rate that runoff reaches a river or stream increases. These are the stormwater quantity issues: volume and rate. The stormwater quality issues are also related to the rainfall-to-runoff relationship; an increase in runoff volumes and runoff rates means an increase in pollutants and sediment being carried to rivers and streams.

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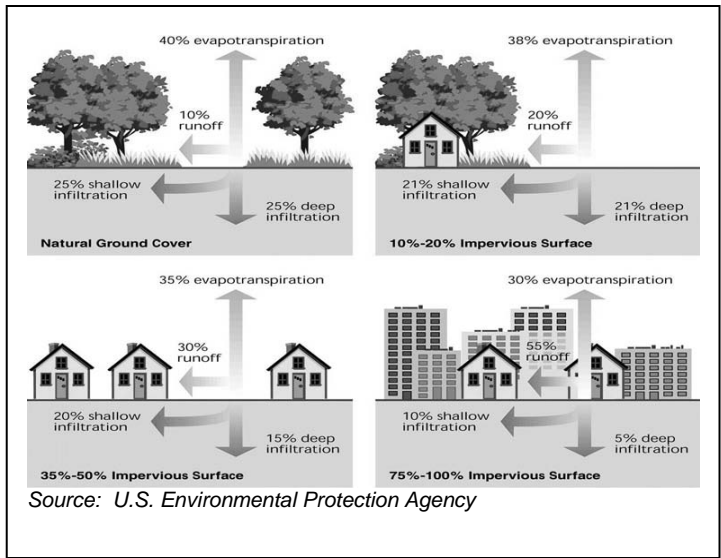
Geneva
426 South Third Street
Geneva, IL 60134
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101 North Wacker Drive
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T 312.683.0110

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3s701 West Avenue, Suite 150
Warrenville, IL 60555
630.393.3060 T
630.393.2152 F

As land is developed in a watershed, more pervious areas are converted into impervious areas. This causes more rainfall to become runoff. Runoff volume and runoff rates increase with development. The aim of stormwater management is to balance development with stormwater drainage, and design approaches that do not cause an increase in flooding due to development.

This paper provides an overview of stormwater drainage and detention practices and approaches, including stormwater runoff volume considerations, stormwater conveyance, depressional storage, detention design standards, detention release rates, modeling and methodology, maintenance considerations, and fee-in-lieu-of detention. While the focus of this paper is on stormwater quantity issues, most stormwater drainage and detention practices address both stormwater quantity and quality issues.



REGULATORY ISSUE

What approaches should be considered for the development of the stormwater drainage and design standards for the Cook County Watershed Management Ordinance (WMO)?

BACKGROUND

The Metropolitan Water Reclamation District of Greater Chicago (District) first addressed stormwater management issues by adopting a stormwater detention policy in the 1970s applicable to separate sewer areas. The District's efforts to control the increases in stormwater runoff due to development were instrumental throughout northeastern Illinois. During the 1990s, the Northeastern Illinois Planning Commission (NIPC) provided the region with the "Model Stormwater Drainage and Detention Ordinance" (Model Ordinance), which was based on their detention effectiveness research. The Model Ordinance offers a range of drainage and detention recommendations for addressing stormwater runoff in order to prevent increases in flood damage due to development. The watershed-based, detention effectiveness research performed by NIPC provided a more thorough understanding of the impacts of development on the rainfall-to-runoff



relationship in watersheds. NIPC's research findings will be discussed in the Release Rates White Paper.

In the 1990s, the collar counties began adopting countywide stormwater management ordinances with requirements that are more restrictive than the District's. The collar county drainage and detention requirements are based on the Model Ordinance. Municipalities within the District's corporate boundaries have been required to adhere to the District's detention policy in applicable separate sewer areas since the 1970s although some communities have adopted more stringent standards based on the Model Ordinance. A summary of stormwater drainage and detention standards in use in municipalities in Cook County is currently being compiled to assess the extent of additional standards that are in place.

Stormwater Drainage and Detention Considerations

The recommended definition for development in the WMO, as presented in the Regulating Development and Redevelopment White Paper, is "any activity, including redevelopment, that affects the discharge of stormwater." Virtually all development activity creates an increase in the impervious area in a watershed, therefore virtually all development activity affects the discharge of stormwater. The Open Space White Paper discusses developments that may improve watershed conditions, though this is the exception. An increase in impervious areas means an increase in stormwater runoff volume and an increase in the stormwater runoff rate. To offset these impacts, and primarily those that stem from new developments, the following regulatory considerations can be made.

Stormwater Runoff Volume Reduction

A stormwater detention basin may capture the increased stormwater volume, but eventually that stormwater is released to, and must be carried by, the stream. This means that a watershed's rivers and streams must carry more water more often. This leads to an increase in stream erosion and loss of streambank vegetation. These effects can impact a stream's ability to carry the next flood. Runoff volume that reaches

a stream can be reduced when runoff is directed toward pervious areas and allowed to infiltrate into the ground. The Model Ordinance recommends a volume reduction hierarchy. This hierarchy calls for the preservation of a site's natural features, such as wetlands and natural streams, the minimization of impervious surfaces, and the use of vegetated swales instead of storm sewers. Lake County's countywide stormwater ordinance requires the use of the hierarchy for all development. The other collar county ordinances contain elements of the Model Ordinance's hierarchy and other best management practices (BMPs).

Runoff Volume Reduction Hierarchy

1. Minimize impervious surfaces on the property consistent with the needs of the project.
2. Attenuate flows by use of open vegetated swales and natural depressions and preserve existing natural streams.
3. Infiltrate runoff on-site.
4. Provide stormwater retention structures.
5. Provide stormwater detention structures.
6. Construct storm sewers.



Stormwater Conveyance

Stormwater conveyance systems are typically divided into a minor system and a major system. The minor system is that portion of the stormwater system consisting of street gutters, storm sewers, swales, etc., designed to convey runoff based on the local jurisdiction design requirements. The major system is that portion of the stormwater system that stores and conveys flows beyond the capacity of the minor system without causing property damage. For example, in a typical subdivision the minor system would be the side yard swales and stormwater sewers, and the major system would consist of the minor system and the dedicated overflow area needed to convey the 100-year runoff to the detention basin. Most collar county ordinances call for the minor system to convey up to a 10-year runoff depending on the local jurisdiction's design standards, and for major systems to convey the base flood, or 100-year runoff. Provisions are also made that all overflow paths carry the base flood event. Other conveyance considerations include the prohibition of direct runoff discharge into natural areas. Direct discharge into natural areas, such as wetlands, can damage the areas and environmental functions can be lost.

Depressional Storage

Maintaining the functions of natural depressional storage areas provides a means of reducing runoff volume and protecting floodplain areas. Any lost depressional storage area puts further burden on adjacent property, riverine floodplains, and detention basins, since depressional storage areas are effectively runoff and floodwater storage areas. The Model Ordinance and the collar county ordinances call for compensation of lost depressional storage due to development, generally at a 1:1 ratio. This storage is in addition to any detention storage that may be required. This is separate from floodplain regulations, where development in storage areas located in designated floodplains are subject to floodplain compensatory storage requirements.

Detention Design Standards

The Model Ordinance and the collar county ordinances call for the design of detention basins that can store the runoff from the 100-year, 24-hour rainfall event using the Illinois State Water Survey's Bulletin 70 for rainfall amounts. The Model Ordinance has a preference for wet-bottom basins over dry-bottom basins. Kane County requires that the runoff from a 0.75 inch rainfall be stored below the outlet either as a wet-bottom or wetland bottom basin. DuPage County is proposing an ordinance change that will include a preference for wet-bottom over dry-bottom basins in order to meet water quality requirements. No preference is expressed for wet-bottom or dry-bottom detention basins in the other collar counties; however, attention to water quality is required. For example, water quality is addressed through requirements that the basin inlet and outlet be constructed at opposite ends of the basin or a maximum distance apart in order to allow time for pollutants to settle. Overflow structures or emergency spillways are required in the collar counties.



Detention Release Rates

During and after a rainfall event, detention basins release a controlled amount of runoff. This is the release rate that is set by the applicable ordinance. The Model Ordinance suggests a dual release rate of 0.04 cubic feet per second per acre of runoff areas (cfs/acre) for the 2-year event, and a 0.15 cfs/acre release rate for the 100-year event. The 2-year release rate recommendation is for water quality purposes, while the 100-year release rate is effective in controlling downstream flooding. Lake, McHenry and Will Counties' release rates are the same as the Model Ordinance. The effectiveness of detention in mitigating the effects of urbanization has been shown to decrease with increasing watershed size. Therefore, with further investigation, DuPage and Kane County set their release rate for the 100-year event at 0.10 cfs/acre. DuPage County has also found that the 0.1 cfs/acre release rate works well for water quality purposes while simplifying the design and maintenance of the basin outlet structure. The District's current ordinance calls for a 100-year release rate equal to the 3-year undeveloped condition runoff from the development site. This equates to a detention release rate of about 0.3 cfs/acre, with a general range from 0.2 cfs/acre to 0.5 cfs/acre, depending on the type and site characteristics (e.g., size, topography, etc.) of the development.

Detention Thresholds

The effectiveness of detention in preventing increases in flows both locally and regionally will depend on the threshold as to when detention is required. The Model Ordinance does not make a recommendation on this but does comment on the community's responsibility to ensure that new development will not damage downstream properties. While the collar counties vary in this threshold they all have established a minimum threshold. DuPage County and Kane County have established the same thresholds for residential subdivisions and non-residential developments at greater than 3 acres and 1 acre, respectively. The District's current threshold policy is 10 acres for residential and 5 acres for commercial developments in applicable separate sewer areas.

Modeling and Methodology

There are a number of approaches that the collar counties and municipalities utilize to estimate runoff rates and volumes for site design and detention basin sizing. These approaches range from simple manual methods, such as the Rational Method and Modified Rational Method, to the more sophisticated hydrologic simulation methods which can be either event hydrograph models or continuous simulation models. The differences in these approaches are the level of detail required describing the rainfall-to-runoff process, and the rainfall amounts/distributions used to estimate flow rates and detention volume. In addition, the more sophisticated methods can deal with more complex drainage situations. Each approach is briefly described below. A more detailed technical description can be found in the Northeastern Illinois Planning



Commission publication "Investigation of Hydraulic Design Methods for Urban Development in Northeastern Illinois – 1991".

The Rational Method uses an empirical formula to provide runoff rates or flow rates for an inputted rainfall amount and for given site conditions. A runoff coefficient that reflects site conditions is used to estimate the rainfall to runoff process. Inputted rainfall is rainfall intensity for various durations. Detention volumes are essentially determined in the Rational Method by multiplying the flow rate by the storm event duration.

Event hydrograph models provide runoff flow rates across a defined time period for an inputted rainfall event and given site conditions. A number of options are available to convert rainfall to runoff which requires more site condition information than the rational formula. Standard design storm events (i.e., 100-yr, 24-hour) are used as inputted rainfall. The flow rates, plotted with the time of the storm event and the time for the runoff to travel to the detention basin or other identified point in a watershed (hydrograph), provide a runoff volume amount. Hydrographs can then be routed through depressional areas, reservoirs or detention basins using storage routing.

The continuous simulation methods provide runoff flow rates for various land cover types for a continuous period of precipitation record. The model incorporates infiltration, interflow, depressional storage, soil storage, snowmelt, overland flow, evapotranspiration, and changes in soil moisture in determining the runoff. The runoff can be routed through depressional areas, reservoirs or detention basins using storage routing. Continuous simulation models can accommodate either individual rainfall events or simulate runoff from a continuous period of precipitation (i.e., months or years). Storage routing is included in these models.

NIPC utilized the continuous simulation method to generate runoff and detention routing over a 45 year period for different land use densities. The results from NIPC's work are unit area detention volumes for land uses with impervious percentages ranging from 0 to 100 percent for release rates of 0.04 cubic feet per second per acre (cfs/ac), 0.1 cfs/ac, and 0.15 cfs/ac. This method can be used to determine detention volumes for simple detention basin design while using a method based on a much more detailed analysis. Figure 1 shows the graph that is used to calculate detention storage required for developments in DuPage and Kane County.



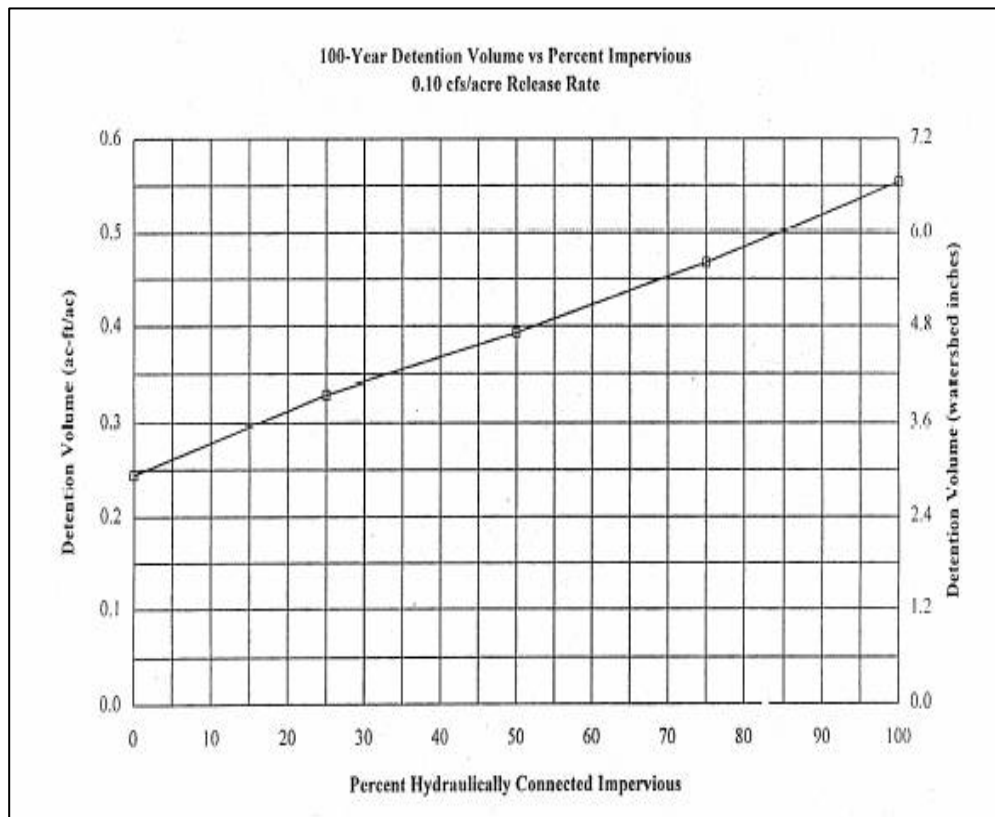


Figure 1: Source - Kane County Technical Manual

These approaches will be further explored in the Release Rates White Paper. The Model Ordinance and collar counties require hydrograph methods for detention design, except for Will County, which allows the Modified Rational Method with additional computational considerations. DuPage, Lake, and Kane County also allow the use of unit area detention volumes for certain detention applications. The District's stormwater ordinance stipulates the use of the Rational Method.

Maintenance Considerations

The Model Ordinance and the collar county ordinances include drainage system and detention basin maintenance considerations. The Model Ordinance provides the basic requirement of a maintenance agreement between the permit agency and the permit applicant. DuPage, Lake and McHenry County have the most substantial maintenance requirements. They require the submittal of a maintenance plan with the permit applications that describes maintenance tasks, the responsible parties,



easements or access information, and funding sources. Additionally, Lake and McHenry County prohibit dumping and illicit discharges into the system.

Subsurface Tile Systems

Attention to subsurface drainage is an element of stormwater conveyance, but in some counties more attention is given to this issue than in others. The goal of the subsurface drainage provisions is to protect existing drain tile systems from being destroyed or being inundated with flows beyond their capacity. Actions taken by Lake and McHenry County to protect existing tile systems include the following measures: tile system inventories, review of other drainage alternatives, repairs, and drainage easements. In DuPage County there are no requirements specified in the countywide ordinance. Developments that encounter subsurface tile systems in DuPage County must adhere to Illinois Drainage Law.

Fee-in-Lieu-of-Detention

Some development sites cannot accommodate detention structures due to site topography, shape, etc. The Model Ordinance and all of the collar county ordinances offer fee-in-lieu-of-detention. The fee is the lesser amount of (1) the cost per acre-foot of required detention (set by the county), or (2) the actual cost of building a facility, including land costs. Collected fees are set aside in funds for the construction of regional detention facilities within the watershed in which they are collected. Fees vary between counties, but take into consideration the cost to acquire land, design, construct, and maintain a regional facility.

The Fee-In-Lieu-Of White Paper will describe the criteria, applicability, and other program features.

Model Ordinance and collar county standards for stormwater drainage and detention design are summarized in the following table.



Stormwater Drainage and Detention

Page 9 of 19
August 17, 2007

Northeastern Illinois Stormwater Drainage and Detention Design Standards

	Model Ordinance-Recommended	DuPage County	Kane County	Lake County	McHenry County	Will County	District
Stormwater Drainage Standards:							
Stormwater Volume Reduction	Site design Hierarchy	List of BMPs	List of BMPs	Site design hierarchy & BMPs	Hierarchy & BMPs	---	---
Stormwater Conveyance-Minor System Capacity	10-year or local authority design standard	10-year or local authority design standard	local authority design standard	Minimum 10-year	Minimum 10-year critical duration	Local authority design standards	---
Stormwater Conveyance-Major System Capacity	Greater than the minor system	Base flood	Base flood	Base flood	Base flood	Base flood	---
Compensatory Storage In Depressional Storage Areas	Replace Lost Storage	Variable *	1:1 Ratio	1:1 Ratio	1:1 Ratio	1:1 Ratio	---
Subsurface Considerations (tile systems)	---	---	Yes	Yes	Yes	Yes	---
Stormwater Detention Standards:							
Threshold	---	> 3 acre residential sub., >1 acre Commercial, >1 acre roads	> 3 acre multi-residential, >1 acre Commercial, >1 acre roads	> 1 acre Impervious surface, > 3acre Disturbed area, >1acre site w/> 50% impv., > 1.5 acre Impervious per mile of road	> 20,000 square feet of new Impervious area	> 5acremulti-single family, >1 acremulti-family or non-residential, > 2 acre new roadway	> 10 acre residential, >5 acre commercial /industrial, separate sewer areas only
Release Rate	0.04 for 2-year , 24- hour; 0.15 for 100-year 24-hour	0.1 cfs/acre for 100-year	0.1 cfs/acre for 100-year	0.04 for 2-year , 24- hour; 0.15 for 100-year 24-hour	0.04 for 2-year , 24- hour; 0.15 for 100-year 24-hour	0.04 for 2-year , 24- hour; 0.15 for 100-year 24-hour	3-year pre-developed runoff rate
Volume Calculation Method	Continuous simulation or event hydrograph	Continuous simulation or event hydrograph	Continuous simulation or event hydrograph	Continuous simulation or event hydrograph ,	Event hydrograph or continuous simulation	Event hydrograph or Modified Rational Method	Modified Rational Method
Overflow Structure Capacity	100-yr inflow rate	1.0 cfs/acre of Trib. area	100-yr inflow rate	Base flood	100-year critical duration basin inflow	100-year critical duration	---
Fee-in-Lieu-of-Detention Provisions	Yes	Yes	Yes	Yes	No	Yes	No
Stormwater Facility Maintenance	Identify responsible party and maintenance schedule	Identify responsible party and maintenance schedule	Identify responsible party, maintenance schedule, and funding source	Identify responsible party, maintenance schedule, and funding source	Identify responsible party, maintenance schedule, and funding source	Identify responsible party, maintenance schedule, and funding source	---

* See explanation of DuPage County's approach in Analysis section of this paper.



ENGINEERING RESOURCE ASSOCIATES,
INC.

ANALYSIS

Collar County Approach

All of the northeastern Illinois collar counties include provisions in their countywide stormwater management ordinances to offset the impacts of development on stormwater drainage. The collar counties require that development shall not:

- Result in any new or increase in expense to any person other than the developer for flood protection
- Increase flood elevations or decrease flood conveyance capacity upstream or downstream

All of the collar county ordinances address runoff volume and rate issues. Runoff volumes must be minimized. Release rates are established with the provision that stream capacities cannot be exceeded unless easements for sewers, swales or streams are obtained. The benefits of depressional storage must be maintained. In DuPage County, for example, if the undeveloped release rate is less than the ordinance default release rate, then the undeveloped release rate must be used. All of the collar county ordinances include maintenance provisions.

DuPage, Kane and Lake County have adopted watershed plans for some areas of their counties. While the countywide ordinances may defer to those plans for alternate drainage and detention standards, they have all opted to maintain uniform, countywide stormwater drainage and detention standards.

District Approach

Standards for stormwater drainage and detention were considered during the development of the CCSMP. Following is an excerpt from Chapter 7 of the CCSMP, which provides guidance on the development of the WMO stormwater drainage and detention practices.

The stormwater drainage and detention aspects of the regulatory program will be guided by the following five stormwater management program goals:

- Goal A) Protect existing and new development by minimizing the increase of stormwater runoff volume beyond that experienced under predevelopment conditions and by reducing peak stormwater flows.
- Goal E) Establish uniform, minimum, countywide stormwater management regulations while recognizing and coordinating with those stormwater programs effectively operating within Cook County.



- Goal M) Reduce or mitigate the environmentally detrimental effects of existing and future runoff in order to improve and maintain water quality and protect water related environments.
- Goal O) Consider water quality and habitat protection measures in all stormwater management activities within Cook County.
- Goal Q) Encourage the public to consider stormwater as a resource rather than as a nuisance.

CCSMP calls for the consideration of the following stormwater drainage and detention practices and approaches in the preparation of the WMO:

- Control of the 100-year Release Rate
- Low Flow Release Rate
- Detention Design Using Appropriate Hydrologic Methods

“The WMO will require detention basin design to use appropriate hydrologic methods. Rainfall data most recently adopted by IDNR-OWR for use in hydrologic modeling, which currently is from the Illinois Department of Natural Resources – State Water Survey (IDNR-SWS) Bulletin 70 and 71 publications, will be required.”
- Steps to Minimize Increases in Runoff Volumes

“Increases in runoff volumes can be minimized through use of a runoff volume reduction hierarchy.”
- Detention Designs which Maximize Water Quality Benefits
- The WMO may express a preference for wet bottom basins.
- Preservation of Onsite Depressional Storage
- Detention in the Flood Fringe
- Detention in the Floodway
- Onstream Detention
- Direct Discharge of Stormwater Runoff to Wetlands
- Formal Maintenance Agreements for New Stormwater Facilities
- Address Subsurface Tile Systems



RECOMMENDATION

The District should develop stormwater drainage and detention standards such that development shall not result in any new or increase in expense to any person other than the developer for flood protection, or increase flood elevations or decrease flood conveyance capacity upstream or downstream. Both increases in stormwater runoff volumes and runoff rates, due to development, should be addressed in the standards.

The District should consider the following standards or approaches for the WMO:

- Include a stormwater runoff volume reduction hierarchy along with individual Best Management Practices where appropriate.
- Select appropriate methods to calculate runoff rates and volumes that have the flexibility to deal with the unusual and complex development and drainage conditions in Cook County and ensure the effectiveness of stormwater facilities.
- Allow minor stormwater conveyance systems be sized to be consistent with the design requirements of the local jurisdiction.
- Require major stormwater conveyance systems be sized for the base flood event (100-year event).
- Maintain the functions of depressional storage.
- Establish a release rate that allows for the storage of post-development runoff so that pre-development flow rates are maintained for characteristics of Cook County watersheds to prevent increased damages.
- Require maintenance plans that describe maintenance activities, maintenance schedule, responsible parties, and funding sources.
- Allow fee-in-lieu-of-detention if feasible within the applicable watershed.

As the above stormwater quantity standards or approaches are further investigated or considered for inclusion in the WMO, other watershed management aspects, such as soil erosion and water quality, should be considered as well.



REFERENCES

1. *Cook County Stormwater Management Plan*, Metropolitan Water Reclamation District of Greater Chicago, February 15, 2007.
2. *Sewer Permit Ordinance*, Metropolitan Water Reclamation District of Greater Chicago, 1999.
3. *Manual of Procedures for the Administration of the Sewer Permit Ordinance*, Metropolitan Water Reclamation District of Greater Chicago, 1999.
4. *Protecting Water Resources with Higher-Density Development*, United States Environmental Protection Agency (EPA 231-R-06-001), 2006.
5. *Evaluation of Stormwater Detention Effectiveness Study*, Northeastern Illinois Planning Commission, January 1991.
6. *Model Stormwater and Detention Ordinance*, Northeastern Illinois Planning Commission, July 1990.
7. *Addendum to Model Stormwater Drainage and Detention Ordinance*, Northern Illinois Planning Commission, July 1994.
8. *DuPage County Countywide Stormwater and Flood Plain Ordinance*, County of DuPage, Illinois, March 8, 2005.
9. *Kane County Stormwater Ordinance*, Kane County, Illinois, January 1, 2002.
10. *Lake County Watershed Development Ordinance*, Lake County Stormwater Management Commission, January 10, 2006.
11. *McHenry County Comprehensive Stormwater Management Plan*, McHenry County Board, Illinois, June 16, 1997.
12. *Will County Stormwater Management Ordinance*, Will County, Illinois, March 18, 2004.
13. *Investigation of Hydraulic Design Methods for Urban Development in Northeastern Illinois*, Northeastern Illinois Planning Commission, December 1991.



ADDENDUM

The following comments were provided by the Technical Advisory Committee (TAC) and were extracted from the August 30, 2007 TAC Meeting Minutes.

1. White Paper #5: Stormwater Drainage and Detention:

a. Overview:

- i. This paper provides an overview of stormwater drainage and detention practices and approaches, including stormwater runoff volume considerations, stormwater conveyance, depressional storage, detention design standards, detention release rates, modeling and methodology, maintenance considerations, and fee-in-lieu-of detention.
- ii. Some issues to consider here are items such as drain tiles and maintenance. Drain tiles are not dependable infrastructure and it is not advisable to hook into them, however, in some areas people are estimating capacity and release rates from drain tile systems. Lake County is trying to deal with this and is currently having a drain tile survey done. Maintenance of stormwater infrastructure, especially detention ponds is an issue and many communities have had to take this task over as many homeowner associations are not taking care of them.

b. Discussion (Questions or comments from members of the TAC are in **bold**. Comments from the District and ERA representatives are in *italics*.):

- i. **The concentrated discharge from detention ponds can have negative downstream impacts as what often times used to be sheet flow is now discharging from a single point. There have been lawsuits regarding this and the rulings have been in favor of the downstream landowner.**
- ii. **In Lake County it is permissible to tie into drainage tiles for nuisance flows.**
- iii. *The District asked for feedback on the various aspects addressed in this paper. For instance, the TP-40 rainfall data will be replaced by Bulletin 70 rainfall. What does the group think about determining release rates and the use of the Rational Method?*
 1. **Many communities are currently using a flat release rate (cfs/acre). Several TAC members stated that approach should be utilized in the WMO.**
 2. **In Hoffman Estates they use the Rational Method with a three year release rate and Bulletin 70 for detention pond sizing. For large developments, such as their business park, they use 0.1 cfs/acre.**
- iv. **Consider incorporating easement requirements into the WMO so that drainage ways and detention ponds will be maintained and not filled and developed upon.**



- v. *Bruce Maki raised the issue of whether or not to include a minimum restrictor size. Several members stated that if a minimum is not included then many restrictors get clogged during storm events. It was acknowledged that having a minimum does have many shortfalls as well. Bruce Maki suggested not having a minimum and including guidance on restrictor designs in the WMO to prevent clogging. The District indicated that this issue requires extensive investigation before a decision can be reached.*
- vi. **Consider requiring developers to establish special service areas for future stormwater facility maintenance issues. If the homeowners association neglects their duties, then the municipality could collect a fee to perform the work without a referendum.**
- vii. *Jon Steffen talked about how many communities are setting up stormwater utilities to cover maintenance activities. There is some resistance to this as real estate taxes are deductible, but utility fees are not.*
- viii. **In Streamwood, every new development must create a special service area to maintain stormwater infrastructure. The cost is approximately \$0.20 - \$0.40 per \$100 property value. The work is done partially by the village and partially by others.**
- ix. **In another Cook County community, a stormwater utility was set up with a very low rate of \$1.00/month. While initially there was very little funding, over time their investments have grown and now are able to maintain their system with very little burden on the residents.**
- x. **Will underground and parking lot detention be considered?** *The District will address underground and parking lot detention in the WMO.*
- xi. **Will by-pass flows be addressed in the white papers?** *The District will address this in future white papers.*
- xii. **Will the WMO have a requirement for wet or dry bottom detention ponds?** *While some communities have a specific requirement, the WMO may take a flexible approach.*
- xiii. **One TAC member noted that on-line detention was not addressed in this paper and that future discussion will be necessary.**

The following comments were provided by the Technical Advisory Committee (TAC) and were extracted from the September 27, 2007 TAC Meeting Minutes.

2. Discussion: Existing Stormwater Management Regulations for Cook County Municipalities

- a. A table summarizing the various elements of stormwater management regulations for all the communities in Cook County was distributed to each TAC member.



- b. Discussion (Questions or comments from members of the TAC are in **bold**. Comments from the District and ERA representatives are in *italics*.)
- i. *The first topic to be discussed from the table is release rate and detention requirements.*
 - ii. **Most TAC members suggested using a flat release rate. It is a method that is widely accepted throughout the region, it simplifies modeling, and it makes the permit review much more straightforward than the rational method as it eliminates the varied interpretations for calculating the time of concentration.**
 - iii. *A white paper is currently under development to compare the current District method with the 0.1 cfs/ac and 0.15 cfs/ac release rates. The enabling legislation requires we develop regulations consistent with those of the Illinois Department of Natural Resources/Office of Water Resources and the Federal Emergency Management Agency, which implies use of Bulletin 70 in the WMO, but does not provide any guidance as to how the release rate is to be calculated.*
 - iv. **Will you look at a staged release rate?**
 1. *If the flat release rate method is implemented, it would probably be a single flat release rate versus a release rate for the 100-year and 2-year events.*
 2. **The Cook County Forest Preserve District is concerned with streambank erosion, so the frequent storm event is an issue. They are proposing in their Draft Stormwater Management Policy a 0.05 cfs/ac release rate be required in the WMO. It is recommended that a dual release rate be considered for the WMO.**
 3. *A dual release rate is more complicated for reviewers, and the size of restrictors for small events raises the issue of clogging. Some of these concerns might be addressed by implementing Best Management Practices (BMPs) on the site, by putting in dead storage, or by not specifying a minimum restrictor size. The rate of 0.05 cfs/ac is extremely restrictive.*
 4. **Does the District drain into another county that does not have flat release rates? Currently DuPage County finds that those applicants who are in two counties with differing requirements have a hard time resolving the issue. Confusion is caused when different methods are utilized in the same region.**
 5. **It should be noted that at the two year event, the basin is not totally full, so you have a lower release rate than 0.1 cfs/ac for the less frequent events.**
 6. **Water quality also needs to be taken into account when deciding how to set the release rate.**



7. **Consideration of downstream impacts would be advised. For instance, when the system outlets into a sewer, erosion is not an issue.**
8. **DuPage studied two stage restrictors and found 0.1 cfs/ac mimics the .04 cfs/ac for lesser events so they did not feel there was a need for 2-year release rate.**
- v. **Will there be a minimum restrictor size?** *The issue is being evaluated. There are strong views on both sides of this issued that need to be considered.*
- vi. *How do the municipalities handle permit reviews?*
 1. **In one community, reviews are done in house when using the rational method. If another method is used, then a consultant is hired to do the review. They charge an engineering cost that includes review and construction inspections. A designated business park area has a set release rate but the rest of the community uses a three year predevelopment release rate.**
 2. **In another community, reviews are completed either in house or with consultant. Fees are not itemized; all fees are a percentage of site improvement costs.**
- vii. *How are submittals and reviews done when the municipality has different requirements than the District?* **In one community, the contractor submits two sets of calculations: one based on the Village's requirements and one based on District requirements. One submittal that could address both County and local requirements is preferred.**
- viii. **If the District lowers the threshold for when detention is required, the additional permit applications will increase the workload dramatically. Is the District prepared to take on this additional work?** *It is possible that once the WMO goes into effect, the villages would do a bulk of the review. In most cases, the District will need to review for the sanitary connection and would do an audit of the stormwater calculations. The District understands that they will have to make adjustments for this new work load.*
- ix. **It is frustrating for local municipalities when they have a design or detail that works, such as a small diameter restrictor, and then the District will not allow. When a municipality has something that works and they will be responsible for the maintenance, it would be appreciated if they could use it. The District hopes to build some autonomy into the WMO so that communities have the ability to employ methods they know will work. The Technical Guidance Manual (TGM) will aid in this as well.**
- x. **When the Will County program was being developed, the sentiment was the developers did not want the County involved at all; they**



saw it as just another step in a long review process. Will County created a process of certification for the local municipalities where they are responsible for review of the development permits in their community. It is understandable that the District has to get involved because of sanitary sewer connection issues, but the local communities would like to have some autonomy or partial delegation for stormwater. Some communities appreciate the extra check, but would like some power in the stormwater arena.

1. *The District stated that one approach would be to set a threshold under which communities could review their own permits, but the District would remain responsible when floodplain or wetlands are involved. The District would like municipalities to take some ownership and there may have to be some level of delegation. Most permits will still come to the District for the sanitary sewer connection. In addition, the District may have an auditing program where each community is reviewed every few years.*
 2. **Certification of communities makes a lot of sense.**
- xi. **The District does not consider the overflow capacities of downstream systems. That is important, and many of the villages look at it. Consider looking beyond volume and release rate. Make sure there is adequate conveyance and proper easements when needed.** *The District agreed and noted that reviewing for downstream capacity and overflow routes will take additional time and it is all the more reason that having communities involved in the review process is an approach to consider.*
- xii. At a District permitting seminar there was a heated discussion between design consultants and the District on how to calculate release rates. The presentation highlighted the many ambiguities that go into the current method of calculating the rate. If the District can put that to bed with the use of flat release rates, it will ease the permitting process immensely.

ADDENDUM

The following comments were provided by the Public & Private Organization Advisory Committee (PPOAC) and were extracted from the November 16, 2007 PPOAC Meeting Minutes.

White Paper #2: Stormwater Drainage & Detention

- xiii. Overview: This paper provides an overview of stormwater drainage and detention practices and approaches, including stormwater runoff volume considerations, stormwater conveyance, depressional storage, detention design standards, detention release rates, modeling and methodology, maintenance considerations, and fee-in-lieu-of detention.



c. Discussion

- i. **Is this paper just about concepts? There is nothing very specific here.**
This paper establishes which standards will be regulated in the WMO, it is not specific to what these standards will be.
- ii. **The City of Chicago ordinance has a release rate as well as volume control standards, will the District do this?** *A release rate will be specified in the WMO and volume control is under consideration.*
- iii. **The background provided in these papers is only from local sources, can you consider looking at programs elsewhere in the country? We have found some good ideas from programs in Minnesota, as well as others. I can bring some of these ideas to the discussion.** *We do look at other things, but local programs best address local issues because of similar geology, poorly drained soils, etc. Any ideas you have from areas with similar characteristics are certainly welcome.*



REFERENCES
CONSULTING SERVICES
For
KANE COUNTY BOARD, Geneva, Illinois

List below businesses or other organizations for whom you have provided comparable services:

Offeror's Name: ENGINEERING RESOURCE ASSOCIATES, INC.

1. Organization: Metropolitan Water Reclamation District of Greater Chicago (MWRDGC)
Address: 111 East Erie Street
City, State, Zip Code: Chicago, IL 60611-3154
Telephone Number: (312) 751-3169
Contact Person: William Sheriff, Supervising Civil Engineer
Date of Project: _____
E-Mail: william.sheriff@mwrd.org

2. Organization: DuPage County Department of Economic Development and Planning
Address: 421 N. County Farm Road
City, State, Zip Code: Wheaton, IL 60187
Telephone Number: (630) 407-6729
Contact Person: Clayton Heffter, Stormwater Permitting Manager
Date of Project: _____
E-Mail: clayton.heffter@dupageco.org

3. Organization: City of Batavia
Address: 100 North Island Avenue
City, State, Zip Code: Batavia, IL 60510
Telephone Number: (630) 454-2750
Contact Person: Andrea Podraza
Date of Project: _____
E-Mail: apodraza@cityofbatavia.net

4. Organization: Village of Downers Grove
Address: 801 Burlington Avenue
City, State, Zip Code: Downers Grove, IL 60515-4776
Telephone Number: (630) 434-5489
Contact Person: Kerry Behr, PE CFM, Stormwater Administrator
Date of Project: _____
E-Mail: kbehr@downers.us



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
03/07/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Holmes Murphy and Associates - Peoria 311 S.W. Water Street Suite 211 Peoria, IL 61602-4108	1-800-527-9049	CONTACT NAME: Leslie Babcock PHONE (A/C, No. Ext): 800-527-9049 E-MAIL ADDRESS:	FAX (A/C, No):
INSURED Engineering Resource Associates, Inc. 3S701 West Street, Suite 150 Warrenville, IL 60555		INSURER(S) AFFORDING COVERAGE INSURER A: SENTINEL INS CO LTD INSURER B: HARTFORD ACCIDENT & IND CO INSURER C: XL SPECIALTY INS CO INSURER D: INSURER E: INSURER F:	
		NAIC # 11000 22357 37885	

COVERAGES

CERTIFICATE NUMBER: 49289128

REVISION NUMBER: Re

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC <input type="checkbox"/> OTHER:			83SBAZQ6429	08/15/16	08/15/17	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS			83UECNM2684	08/15/16	08/15/17	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$ 10,000			83SBAZQ6429	08/15/16	08/15/17	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input type="checkbox"/>	N/A	83WECLV8434	08/15/16	08/15/17	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	Professional Liability Claims Made			DPR9808304	08/15/16	08/15/17	Each Claim 2,000,000 Aggregate 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Re: Kane Co Water Resources PPl702.13 Consulting Services 10-017

The County of Kane is an additional insured on the general, auto and umbrella liability as required by written contract on a primary and non-contributory basis per policy terms and conditions. Umbrella is follow form.

A 30 Day Notice of Cancellation applies on the general, auto and umbrella liability as required by written contract, per policy terms and conditions. Waiver of subrogation applies on all policies as required by written contract.

CERTIFICATE HOLDER**CANCELLATION**

County of Kane 719 Batavia Avenue Bldg A Geneva, IL 60134 USA	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE <i>Paula A. Skon</i>
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ENGINEERS | SCIENTISTS | SURVEYORS

CONTRACTOR DISCLOSURE

As of March 10, 2017, ENGINEERING RESOURCE ASSOCIATES, INC, to the best of our knowledge the Owners, Officers or Executives have not made any political campaign contributions to any Kane County Elected Official countywide in the last 12 month period.

Below is a list of shareholders or owners with at least 5% holdings in ENGINEERING RESOURCE ASSOCIATES, INC.:

Jon Green,	3s701 West Avenue, Ste #150, Warrenville, IL 60555	32%
John Mayer,	3s701 West Avenue, Ste #150, Warrenville, IL 60555	31%
Jacob Wolf,	3s701 West Avenue, Ste #150, Warrenville, IL 60555	19%
Marty Michalisko,	3s701 West Avenue, Ste #150, Warrenville, IL 60555	18%

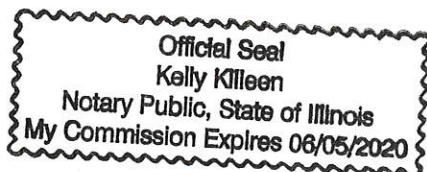
Title - Jon Green, President

Officer

3/7/17
Date

Subscribed and Sworn this 7 day of March, 2017

Notary Public



WARRENVILLE

3s701 West Avenue, Suite 150
Warrenville, IL 60555
P 630.393.3060

CHICAGO

10 South Riverside Plaza, Suite 875
Chicago, IL 60606
P 312.474.7841

CHAMPAIGN

2416 Galen Drive
Champaign, IL 61821
P 217.351.6268

ADDITIONAL INFORMATION

Please list additional pertinent information:


RFP SUBMITTAL CHECK LIST

The undersigned Vendor or Agency acknowledged and verified that all required documents, statements and all certificates meeting County's requirements are included in their proposal response. Providers shall check the following required submittal items checklist listed below to assure the completeness and in order for assembling of their RFP response.

- X : SIGNED RFP RESPONSE FORM (page 1)
- X : SQPD FOR 2017-2018 FOR CONSULTING FIRM
- X : PROPOSAL RESPONSE (Per Statement of Work, Section I-IX)
- X : REFERENCES
- X : CONTRACTOR DISCLOSURE STATEMENT (See attached sample.
Required submittal with RFP response)
- X : CERTIFICATE OF INSURANCE (See attached sample. This is a required
submittal if awarded a contract)
- X : ELECTRONIC SQPD AND RFP COPY (PDF on a CD or Flash Drive)

Provider/Agency Engineering Resource Associates, Inc.

Printed Name Simona Hawk (Monica Hawk)

Signature  Date 3-10-2017