APPENDIX
SUPPLEMENTARY MATERIALS

Genesee Valley Park West

Master Plan

City of Rochester

New York State DOS Department of State

2015

This document was prepared for the New York State Department of State with funds provided under Title 11 of the Environmental Protection Fund Act.

APX

APPENDIX
SUPPLEMENTARY MATERIALS

City of Rochester

Bayer Landscape Architecture, PLLC

Department of Environmental Services
Architecture and Engineering Services
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30 Church Street
Rochester, New York 14614-1279

19 North Main Street
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Genesee Valley Park West Master Plan

City of Rochester Project #10320, NYSDOS Project I.D. #C006965

Project Advisory Committee Meeting #1: Scoping

Date: Thursday, October 25, 2012
Time: 12:30 PM – 2:00 PM
Location: Community Room, Hamilton Apartments, 2nd Floor

1. ATTENDANCE

NAME	DEPT. / FIRM	EMAIL
In Attendance		
Zak Steele	Bayer Landscape Architecture	zds@bayerla.com
Mark Bayer	Bayer Landscape Architecture	mhb@bayerla.com
Renee Parsons	NYS DOS	renee.parsons@dos.ny.gov
Peter Siegrist	City of Rochester	peter.siegrist@cityofrochester.gov
Steve Metzger	LaBella Associates	smetzger@labellapc.com
Tim Webber	LaBella Associates	twebber@labellapc.com
Tony Jordan	City of Rochester (DRYS)	jordana@cityofrochester.gov
John Picone	City of Rochester (DRYS)	piconej@cityofrochester.gov
Jeff Mroczek	City of Rochester (DES)	mroczekj@cityofrochester.gov
David Hawks	City (SW-NSC)	-
Not In Attendance		
Jody Micoli	City of Rochester (Architecture)	JodyC@cityofrochester.gov
Cindy Stachowski	Genesee Waterways Center	cstachowski@geneseewaterways.org
Caitlin Meives	Landmark Society	cmeives@landmarksociety.org

2. NEXT MEETING DATE:

Next Project Advisory Committee meeting T.B.D. (end of November)

3. INTRODUCTIONS / PROJECT REVIEW:

3.1. Jeff Mroczek gave an in-depth review of the project and overall scope of the GVPW Master Plan project
3.2. Project funded by City of Rochester, with a grant from the NYS Department of State
3.3. Consultant team includes: Bayer Landscape Architecture (prime), LaBella Associates, Moffatt & Nichole, Bero Architecture and Charles E. Beveridge
3.4. Technical advisory committee : represented attendance, plus Genesee Waterways Center, City Planning & Zoning, City Architectural Services, Landmark Society
3.5. Project includes Community Advisory Committee: members notified and on board through City (J. Mroczek)
3.6. Project Website: All minutes and product will be posted on the City's project website.

4. SCOPING TOPICS:

4.1. **Genesee Waterways Center:** Large component of project. Goal for more modern facility. Unlikely to use existing structure. Consultant to focus master planning efforts on integrating a new structure rather than in-depth analysis of current building.
4.2. **Historic – Cultural Landscape Report:** Olmsted designed park - will require cultural resource inventory and report.

4.3. **Tree Survey:** Will not be surveying the entire park. North section previously surveyed. Consultant to verify. Remaining stand-along trees in south park to be surveyed per agreement outline. Ash trees were surveyed through City Forestry. Jeff M to get available data.
4.4. **General Character:** Architecture concepts to show general character of proposed new buildings (GWC) and possible precedents from other communities.
4.5. **Ice Rink / Pool:** Buildings analysis to be cursory investigation and review of existing plans. Will be most important to get input from Parks / Staff to understand issues related to these facilities. Review existing surveys done by City Architectural Services.
4.6. **Public Meetings:** Will involve community to understand their desires. What does the community see as needs for the future buildings and park infrastructure?
4.7. **Sub-Surface Investigations:** Any subsurface investigation needs will be determined on a case by case basis.
4.8. **Utilities:** From available record mapping, with some surface checks.
4.9. **Olmsted Bridge:** DOT owned. Will be an important component to review.
4.10. **Genesee valley Greenway / Rail Bridge:** Possibility of accessible path. Would like to open up to users.
4.11. **Parks / Rec Items:** New Little League – trying to restart program. High school teams play on park fields. YMCA Love-15 tennis program. Hiking and other programming.
4.12. **Canal Corp:** Will be an important component to future plans. Discussion on dredger equipment that is docked at park full time.

5. SCHEDULE / COORDINATION:

5.1. **Overall Schedule:** BayerLA to revise project schedule and submit to City.
5.2. **Upcoming Meetings:** First Citizens Advisory Committee is anticipated for late November / early December.
5.3. **NYSDOS:** Renee would like to be copied in on all deliverables – to be able to review items as they are done.
5.4. **LWRP (new update):** Master plan should coalesce and inform the upcoming update to the LWRP (being completed by Matt Ingalls). Funding comes through the LWRP so it's important they are tied together and consistent.
5.5. **Consultant Team / Site Walks:** BayerLA to schedule site walks with various subconsultants and stakeholders, per project topic (history, utilities/infrastructure, etc). Possible walking tour of park with Citizens Advisory Committee

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-END-

This document was prepared for the New York State Department of State with funds provided under Title 11 of the Environmental Protection Fund, Local Waterfront Revitalization Program, #C006965.

Please notify Bayer Landscape Architecture of any errors or omissions to these meeting minutes.

Zakery Steele, ASLA
Bayer Landscape Architecture, PLLC
zds@bayerla.com

Attachments: *none*

GVPW – Kick-off 10/25/12

Sign-in

Name	Representing	email
Zak Steele	BayerLA	zds@bayerla.com
MARK BAYER	"	MHB@BAYERLA.COM
Renee Parsons	NYS DOS	renee.parsons@dos.ny.gov
PETER SIEGRIST	CITY	peter.siegrist@cityofrochester.gov
Steve Metzger	LBA	smetzger@labellapc.com
Tim WEBBER	LBA	TWEBBER@LABELLAPC.COM
Tony Jordan	City (DRYS)	jordonaP cityofrochester.gov
JOHN G. PICONE	(DRYS)	piconej@cityofrochester.gov
Jeff Mroczek	City DES	jmroczekj@cityofrochester.gov

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Genesee Valley Park West Master Plan

City of Rochester, Project #20042, NYSDOS #C006965

Advisory Meeting #1

Date: February 13, 2013, 2:00-5:00 PM
Location: Genesee Waterways Center, 149 Elmwood Ave, Rochester NY 14611

A. ATTENDANCE (see attached sign-in)

Name	Representing	Contact / Email
Sheila Bazil	Community	sheila-bazil@yahoo.com
John Curran	Community	jecurran@rochester.rr.com
Gloria Edmonds	Community	gloriaedmonds@yahoo.com
Jim Farr	City of Rochester	farrj@cityofrochester.gov
David Hawkes	City of Rochester	hawkesd@cityofrochester.gov
Anthony Jordan	City of Rochester	jodana@cityofrochester.gov
Jody Micoli	City of Rochester	jodyc@cityofrochester.gov
Jeff Mroczek	City of Rochester	mroczekj@cityofrochester.gov
John Picone	City of Rochester	piconej@cityofrochester.gov
Joan Roby-Davidson	Sector 4 CDC	joan.sector4cdc@yahoo.com
Peter Siegrist	City of Rochester	peter.siegrist@cityofrochester.gov
Cindy Stachowski	Genesee Waterways Center	cstachowski@geneseewaterways.org
Mark Bayer	Bayer Landscape Architecture	mhb@bayerla.com
Zakery Steele	Bayer Landscape Architecture	zds@bayerla.com

B. INTRODUCTIONS / PROJECT UPDATE

1. PROJECT INTRODUCTIONS: Jeff Mroczek gave an overview of the project scope and introduced Bayer Landscape Architecture and the consultant team lead. Project partner is the NYS Department of State. Project is a master plan that does not include construction. Will contain recommendations for future development of the park, and be utilized in future funding requests and park improvements.

2. UPDATE / MEETING CONTENT: Discussion and overview of project scope, including waterways center, recreation use, important historic development of the park, presentation of selected inventory and analysis data. All project materials, presentations and meeting minutes will be placed on the City's project website.

3. PROJECT SCHEDULE: Project is year-long timeline, currently a few months into schedule. Wants to be flexible due to the large amount of data gathered on the park for inventory and analysis. Two public meetings will be held. The first public meeting will likely be held in late March (2013).

C. INVENTORY AND ANALYSIS PRESENTATION / HISTORIC REVIEW

1. CONSULTANT TEAM INTRO: Mark Bayer gave brief introduction and discussion of importance of knowing how the park evolved as a precursor to the program development phase. Plan will be a long-range plan, not being developed tomorrow, but will be a platform for funding and guiding future development of the park. Full team includes Bayer Landscape Architecture as lead, LaBella Associates for architecture and engineering, Bero Architecture for cultural landscape research, Moffatt & Nichol for waterfront/hydrology, Dr. Charles Beveridge for Olmsted-related research/guidance.

2. PRESENTATION – INVENTORY AND ANALYSIS: Zak Steele described the team's overall master plan process and inventory and analysis as the current phase of work. He presented the following data and overview of historic development of the park:

3. CONTEXT OF THE PARK: Presentation / discussion on the full context of GVPW, including the larger park system, nearby institutions, municipal context (many different adjacent towns/users), adjacent neighborhoods (19th Ward, PLEX, Genesee-Jefferson, University), demographics, land-use controls, regional trail circulation through park.

4. FEATURES OF THE PARK: Presentation / discussion on aspects of the park, including existing facilities and conditions, views to/from the park, vegetation, hydrology, natural resources, cultural landscape component.

5. VIEWS: Discussion of negative and positive views within the park and views to the park from adjacent areas. Possibility of opening up views, better framing of significant features, more views of the river. Better viewing opportunities for the regatta (Head of the Genesee) should be provided.

6. CIRCULATION: Discussion of internal and external circulation, pedestrian, bike and vehicular. Issue with access, buses and turning movements at Elmwood entry. Park as a major crossroads for regional trails / bike routes. Includes Genesee Riverway Trail, Genesee Greenway Trail, NYS Canal trail. Recent URMC study shows highest use of all segments of the Riverway trail is in GVPW. Rochester Cycling Alliance is working on a "Multiversity" trails link (RIT, UR, MCC) hope to be incorporated into $65m highway interchange should include biking infrastructure – "Access 390" project. Bike rentals would be a good amenity to provide, possibly at the Waterways Center. Signage and wayfinding is an issue in the park, with many through-riders on the canal trail stopping to ask for directions. The transition from canal trail to park trail could be more clear and easy to understand.

7. AIRPORT: Discussion of airport as major adjacent land use. Impacts other land uses and poses a challenge, but also an opportunity. Lots of nearby overnight travel stays could be an opportunity for recreation users of an enhanced park.

8. FISHING: Fishing is a popular activity but the park no longer supports specific accommodation for it. Limited signage and river-side fishing access trails do exists, but it's not part of the park program any longer.

9. TREES: Tree survey data was mapped for individual trees. Team looked at species diversity (heavily dominated by Oaks and Maples, though maples are and outlier due to many small ornamental Amur maples). Age estimates of trees completed using species growth factors. Park includes trees that were planted as part of Olmsted's plans, as well as a limited number of trees that were likely pre-existing prior to formation of the park (approximate 11 trees have been dated to 1850 and earlier). Many trees planted after 1991 ice storm (planted in 1993-1994).

10. HYDROLOGY: Review of potential flood areas, state wetlands, soils (water table), Moffatt and Nichol will be looking at interface of land and river edge, hydrology of river, dock use and designs.

11. ECOLOGY: Reviewed data relating to influence of Genesee River and ecological importance in the Great Lakes Plain ecozone, rarity of ecosystem, species diversity (bird, fish, mammal). Discussed influence of development / industry and pollution impact on quality and health of the river ecology.

12. CULTURAL LANDSCAPE: Noted as the first time a significant compilation of park history has been combined for the GVPWest using primary research sources. Reviewed the timeline of park development and features through time utilizing historic Olmsted drawings, aerial overlays, City plat/record maps, and photographic resources. Focus of presentation was on 1888 to present day. Full Cultural Landscape Report will include pre-history, Native American trail / crossroads, and Genesee Valley Canal / European settlement eras. Discussion of various multiple iterations of public / private athletic facilities, boat houses, canoe clubs, ice skating rinks, swimming pools within the park.

13. ORIGINAL MASTERPLAN / OLMSTED DESIGN GOALS: Olmsted struggled with the need for recreation infrastructure while wanting to maintain the park visual experience across the river from east to west. Research has found a significant amount of discussion between 1888 Parks Commission and Olmsted firm on where to place recreation infrastructure and buildings. Olmsted wanted to place them north of Elmwood exclusively. Olmsted finally gave in to pressure from the Commission and agreed to design recreation facilities south of Elmwood.

14. OLMSTED IMPACT / IMPORTANCE: Review of ordinal Olmsted goals for park and relationship to today's riverfront recreation use – noted as very far ahead of his time in using the river for public parks / enjoyment. Rochester is one of only four cities with full park systems

designed by Olmsted firm. Discussion was held on the importance of using this significant history as a platform for future funding and park improvements, similar to Buffalo's very successful Parks Conservancy. Design needs to serve a contemporary program, just as recreation movements and desires have changed over time, but the team believes this can be done using the history as a foundation for the overall master plan.

15. WATERWAYS CENTER / WATER SPORTS IMPACTS: Discussion on growing use of the Waterways Center and water sports facilities (river, canal, black creek). Park has an incredible location, very little wave action, ability to move to canal in high winds, all very positive for rowing. Events held at the park are strong economic development initiatives, such as Head of the Genesee regatta. Public livery / rental side is growing as well – nearly unlimited potential for recreating on the water at this location. This growth will be helped by long-term designed park improvements and updates.

16. MONROE COUNTY: Discussion on Monroe County Parks involvement with Genesee Valley park West – basically none at this point – GVP east and west are run as separate facilities. It was suggested that the project involve Monroe County Parks, Mark Quinn, Dave Rinaldo.

D. NEXT STEPS / UPCOMING MEETINGS

1. NEXT STEPS / PROJECT PHASES: Bayer Landscape Architecture to continue to refine and develop the inventory and analysis data to incorporate into complete report. Also beginning development of a program for future park improvements. This will include a investigation into recreation needs, current recreation use of the park, community input / desires, suggested program from analysis phase results.

2. UPCOMING PUBLIC MEETING**:** Public meeting to be held in late March to present park inventory and analysis and have the public help develop a program of improvements. Discussion on location and possible need for larger space. Date and location to be determined shortly and advertised by the City of Rochester.

-END-

Please notify Bayer Landscape Architecture of any errors or omissions to these meeting minutes.

Zakery Steele, ASLA
Project Manager
Bayer Landscape Architecture, PLLC
zds@bayerla.com

Attachments: *sign-in sheet*

GENESEE VALLEY PARK WEST MASTER PLAN

Advisory Committee Meeting
February 13, 2013 - 2:00–4:00 P.M.
Genesee Waterways Center

Name	Address	Email
Sheila Bazil	53 ARVINE HTS.	sheila_bazil@yahoo.com
PETER SIEGRIST	CITY OF ROCHESTER	peter.siegrist@cityofroch...
ZAK STEELE	BAYER LA	zds@bayerla.com
Joan Roby-Davison	89 Genesee St.	joan.sector4cdc@yahoo.com

GENESEE VALLEY PARK WEST MASTER PLAN

Advisory Committee Meeting
February 13, 2013 - 2:00–4:00 P.M.
Genesee Waterways Center

Name	Address	Email
Gloria Edmonds	1111 So. Plymouth Ave	GloriaEdmonds@yahoo.com
John Curran	112 Gregory Hill Rd.	jecurran@rochester.rr.com
Jim Farr	400 Dewey Ave	farrje@cityofrochester.gov
Anthony Jordan	400 Dewey Ave	JordanO@cityofRochester.gov
John Picone	400 Dewey Ave	PiconeJ@cityofrochester.gov
Mark Bayer	19 N. Main Honeoye Falls	mhb@bayerla.com

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Genesee Valley Park West Master Plan

City of Rochester, Project #20042, NYSDOS #C006965

Recreation / Facility Use and Programming Meeting

Date: February 21, 2013, 9:00-10:30 AM

Location: GVPW Sports Complex, 131 Elmwood Ave, Rochester NY 14611

A. ATTENDANCE

Name	Representing	Contact / Email
Jim Farr	City of Rochester	farrj@cityofrochester.gov
John Picone	City of Rochester	piconej@cityofrochester.gov
Zakery Steele	Bayer Landscape Architecture	zds@bayerla.com

B. MEETING PURPOSE / AGENDA

1. **EXISTING RECREATION USE:** Discuss existing recreation use throughout the year for fields, courts, and other facilities at GVPW.
2. **PROGRAMMING DEVELOPMENT**: Discuss program ideas, existing issues, needs, desires and possible programming items to be incorporated into the park master plan.
3. **UPCOMING PROJECTS:** Discuss upcoming capital improvements that are already in the queue / planned /anticipated for the park.

C. EXISTING RECREATION USE – TYPICAL YEAR

1. **JANUARY**: Heart of the ice rink season, includes U of R Hockey, High Schools (Gates-Chili, Brighton home rinks), Youth Hockey, Adult Leagues (M-Th), Friday and Saturday nights are U of R mens and womens game nights, sectionals in February / March, adult/kids open skate (limited due to other games/use)

2. **FEBRUARY**: Continue typical January program. NYS Special Olympics / State Winter Games with Figure Skating and Speed Skating, Hockey leagues begin to wind down, Community event with skating

3. **MARCH**: Hockey leagues wrap up in mid-March, speed skating, continue adult/kids open skate. Rowing begins in late march depending on weather.

4. **APRIL**: Ice rink comes down in early April (1st or 2nd Saturday), rink facility is shut down for 2-3 weeks for transition to sport court floor, FleetFeet event in park, Kids Triathlon, Flower City Challenge/River Challenge – Duathon and Triathlon.

5. **MAY**: Baseball / softball through the spring and summer, Roller derby on the Arena sport court, Floor hockey (adult league), canoe / kayak rentals begin at the end of May, Lacrosse in arena, sport court open rental times available, Genesee Valley Little League (GVLL)

6. **JUNE**: Tennis program (runs to October), Outdoor pool / swim open 7 days per week, Rochester Rapids Swim Team (to August, then to Adams St indoor pool for winter)

7. **JULY**: Sports camp (HQ at Field House) with soccer, basketball (@GVPW?), tennis, football, baseball, wrestling, golf, triathlon, hiking. Canal Cycle Tour stop (Jul 8). Love-15 Tennis Program (YMCA) begins, runs through August.

8. **AUGUST**: Sports Camp, Lacrosse winds down (Rochester Greywolves), Floor hockey ends, Arena sports court shuts down to prepare for ice rink.

9. **SEPTEMBER**: Ice rink opens up, Rochester River Challenge / Outrigger Canoe water sports event, Outdoor pool closes for season (Labor Day), Canoe and kayak rentals end

10. **OCTOBER**: River Romance events, Family skate, Head of the Genesee Regatta, School hockey and leagues begin, limited open skate time

11. **NOVEMBER / DECEMBER**: Arena ice rink season going – Hockey, Skate, some winter community events

D. USE NOTES, EXSITING ISSUES, PROGRAM DEVELOPENT / DESIRES

1. **CONCESSIONS:** There is a need for concessions / improved concessions services / area. Issues in the past with concessions contracts, City is actively trying to sign new contract, and would like updated infrastructure/facility. The arena and park use is very high and opportunities for concessions are not being fully taken advantage of. Many arena / park users comment on the need for concessions – noting that it's a large issue with the facility. However, there is still high use because of the quality of the ice and the customer service.

2. **OUTDOOR "PATIO" AREA:** Vendor would have ability to acquire liquor license to serves alcohol on adult game evenings or other large park events such as the Regatta. Arena complex could use outdoor patio area – "beer garden" – for event use and general improvement of experience. Current concrete pad outside of ice rink overhead door is sometimes used for BBQ events or outdoor gathering.

3. **INDOOR SPORT COURT / SYNTHETIC TURF:** Switch of sport court and ice rink take up recreation time. There are limited openings for sport court rental and high use/demand for the surface. A possible additional year-round sport court or synthetic turf facility would allow for greater range of programming. Need is there, commercial operators such as Total Sports Experience providing year-round facility.

4. **BASEBALL FIELD #4 USE:** Baseball Field #4 (full size hardball, lighted) is currently used too often for other park needs such as parking/trailers during the Regatta, other non-baseball sports leagues or users that want to rent the field with lights. This is due to the location right on the river, close to parking, between the Arena Complex and the GWC. There is a desire to either relocate the hardball diamond or somehow arrange future facilities so that the hardball field can be preserved for its intended use.

5. **BALL DIAMONDS #5 & #6:** Diamonds on north side of Elmwood are not as fully utilized as other fields on south side of Elmwood. This may change with the Little League starting up again. These diamonds received new backstops approximately 10 years ago.

6. **U OF R NEW FIELDS:** Facilities that opened up last year at the U of R have impacted amount of GVPW field use. Three teams moved their field use from GVPW to the U of R facilities.

7. **TENNIS COURTS:** Severe issues with cracking / settlement of the tennis court surface. Thought to be due to high water table. Plan to reconstruct in the future at present location or a possibly new location. Have had some issues with crime at this corner of the park as it's far away from the rest of the facilities.

8. **FIELD HOUSE:** Building is well used by the community. Interior needs some upgrades but otherwise the location is good for the neighborhood and the demand is fairly high.

9. **BASEBALL FACILITY:** Dedicated baseball facility, including amenities such as dugouts, training/warmup area (batting cage), or other contemporary ball field complex infrastructure (bathrooms, practice area) would be well used.

10. **LIMITED PUBLIC SKATE AVAILABILITY:** Due to high demand for ice rink, time for public skating is limited. Would like to add additional slab due to high usage and availability to public (open skate). Rinks could be side-by-side and share infrastructure.

11. **POOL AREA:** Pool area needs gathering space and family space. This would allow users, parents, visitors watching events or children to be within the pool area. Spectators currently setup outside of the chainlink fence along the edge of the parking lot. An outdoor space with grass or other sitting amenities inside the fence would also greatly improve the experience of general open-swim leisure. Also a desire for indoor pool to allow for year round use – or a combination indoor/outdoor pool facility that will let sun in through the roof.

12. **SPRAY PARK:** Spray park facilities are very popular and get intense use throughout the summer season. This water-play infrastructure mostly serves the local neighborhood. Closest spray facility to GVPW is Troup Street, which is extremely limited (only one very basic spray fountain) and nearly 2 miles away. Desire is for a larger facility that can accommodate many groups and families. Nearby Flint St recreation center (1.1 miles from GVPW) has a round outdoor pool that will likely be replaced with a spray park in 2014.

13. **CIRCULATION / WAY-FINDING:** There are way-finding issues with through-trail users, which results in confusion and not knowing where to go to continue through the canal trail or Greenway Trail. Some trail users who have not been to the park before have trouble finding the continuing trail. Park staff has to prepare extra trail signs and/or remark the trails on a regular basis to help with way finding. This is less of an issue with Genesee River Trail users who use the trail on a more frequent basis. Also a need for trail way-finding signage

directing users to downtown, corn hill and directions to nearby Brighton, Pittsford, U of R, RIT (Lehigh Trail)

14. **CIRCULATION CONFLICTS:** Parks staff notes that the river front trail should be brought away from the boat house to lessen conflicts with rowing users at the water edge. The issue is compounded by the location of the trail/GWC waterfront and a nearby hill that tends to cause high-speeds right at the area where signs are directing bikers to walk their bikes (waterfront at the GWC facility).

15. **RESTROOMS:** Typically there are restrooms within the GWC building or other facilities for use. However, the restrooms in the GWC have experienced plumbing issues (sanitary line pump failures/backups) so these have generally been closed to public use. The City brings in portable toilets during the summer for the general park / recreation field use.

16. **SKATE PARK:** City is currently having a consultant perform a feasibility study for a large Rochester skate park down-river under the SBA-FD Bridge (east side). There may be desire for a small neighborhood-sized skate park.

17. **DOG PARK:** Park is not currently heavily used for dogs and the City has not seen much demand for fenced dog parks.

18. **COMMUNITY GARDENS:** City has not experienced demand for community garden space within the park. There are a lot of vacant lots in the adjacent neighborhood and the City has a process for converting them to community gardens.

E. UPCOMING PARK PROJECTS / FACILITY UPGRADES (Supplemented with notes from City Architectural Services)

1. **RECENTLY COMPLETED IMPROVEMENTS:** New Ice Rink Scoreboard, Pool Mechanical Equipment Replacement, Building Mechanical Upgrades and Ice Rink Compressor Replacement

2. **ICE RINK SLAB REPLACEMENT:** Spring 2013

3. **BUILDING RENNOVATION PROJECT (REC CENTER/SPORTS COMPLEX):** In pre-design phase, scope development, includes limited interior upgrades, anticipated +2014

4. **POOL DECK REPLACEMENT / ACCESSIBILITY:** Anticipated +2014, Pool Deck Replacement and Accessibility-the pool is not handicapped accessible, the deck is cracking, the foundation of the bulkhead, as well as the lifeguard stand mounting brackets are rusting.

5. **PLAYGROUND REPLACEMENT:** Anticipated +2015

6. **TENNIS COURT RECONSTRUCTION:** Anticipated +2016, may include relocation to alternate site

7. **POSSIBLE / NEEDED UPGRADES IN QUEUE (***ARCHITECTURAL SERVICES DATA, NO TIMELINE***): Various Improvements** – misc. improvements are required from interior lighting, acoustical tile and ceiling grids, flooring, rusting door frames and painting to exterior concrete repairs, landscaping and drainage improvements. **GVP Ice Rink Building Insulation Replacement** - the vinyl faced batt insulation has damage due to age and hockey pucks. **GVP Field House Interior Repairs** – the floor is asbestos, the restrooms need a facelift and the interior needs painting and more durable countertops. **GVP Marina building Plumbing Upgrades** – the sewage lift station is at the end of its useful life, the existing catch basin, ejector pumps and controls need replacement.

-END-

Please notify Bayer Landscape Architecture of any errors or omissions to these meeting minutes.

Zakery Steele, ASLA
Project Manager
Bayer Landscape Architecture, PLLC
zds@bayerla.com

Attachments: *n/a*

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Genesee Valley Park West Master Plan

City of Rochester, Project #20042, NYSDOS #C006965

Public Meeting #1

Date: May 9, 2013, 6:00-8:00 PM
Location: Genesee Waterways Center, 149 Elmwood Ave, Rochester NY 14611

A. ATTENDANCE (see attached sign-in sheet)

PROJECT TEAM

Jeff Mroczek	City of Rochester	mroczekj@CityofRochester.Gov
Mark Bayer	Bayer Landscape Architecture	mhb@bayerla.com
Zakery Steele	Bayer Landscape Architecture	zds@bayerla.com
Makoto Hagi	Bayer Landscape Architecture	mh@bayerla.com
Mackenzie Sanford	Bayer Landscape Architecture	ms@bayerla.com

ATTENDEES

Val Nelson-Metlay	Doris Meadows
Susan Kloc	Don Metlay
Cherie T Balch	Colleen Snoddy
John Curran	Sylvia Pecursan
Dorothy Hall	Sharon Conheady
John & Elaine Epping	Lashay Harris
Rich DeSurra	Jon Schull
Douglass Holleley	Gloria Edmonds
Edward Cramp	Dan Serianni
Sheila Driscoll	Joan Roby-Davison
John Lightfoot	
Robert Terrell Jr	

B. MEETING AGENDA

1. **INTRODUCTION & PRESENTATION:** Jeff Mroczek, project manager for the City of Rochester introduced the project. Zakery Steele, Project Manager for the consultant team (Bayer Landscape Architecture) gave a presentation on the project scope, process, and a selected inventory and analysis, including an overview of the park's development history.

2. **QUESTION & ANSWER SESSION:** A Q&A session was held immediately following the presentation by the project consultant team. Questions, comments and discussion notes are transcribed in detail below.

3. **OPEN HOUSE / MATERIALS REVIEW:** Meeting attendees were invited to review large display boards showcasing the park's PAST, PRESENT and possibilities for the FUTURE. The City and Consultant team was on hand to answer questions and take comments during this portion of the meeting. Notes and comments are transcribed below.

4. **NEXT STEPS:** The City and consultant team will organize input from this public meeting and use it to further define the design program for the park master plan. Bayer Landscape Architecture will present the draft program to the Citizens Advisory Committee and begin to develop alternative master plan concepts. These concepts will be presented at a future public meeting for additional comments and input. The Public meeting attendees, the City, and the Citizens Advisory Committee will evaluate the alternative concepts and select a proposal to carry forward and revise into a final park master plan to be completed by the end of 2013.

C. Q&A NOTES, COLLECTED QUESTIONS & COMMENTS (comments have been organized by theme)

1. GENERAL / PARK USAGE

a. Genesee Valley Park West is under-utilized, it needs to be heavily used.

b. How are people using the park today? Are we tracking this usage? The consultant team has met with the Department of Recreation and Youth services to catalog all programmed events throughout the typical year.

Yes. The consultant team has met with the City Department of Recreation and Youth Services to catalog all programmed activities throughout the year. A month-by-month activity chart, including attendance, is presented on the "Present" presentation board and will be included in the report.

c. Park activities should be recorded – tracking usage of vehicles parking where they should not be parking, garbage being thrown in the park. Cars are parked up on the grassy knoll near the picnic areas and grills. No respect or attention is paid to the rules or parking.

The Consultant team has spent a considerable amount of time in the park but cannot spend enough time on the ground to discern all use patterns. Part of the reason we have a Citizens Advisory Committee and Public Meetings is to receive input on these use patterns that may not be observable by the team.

d. I am a long-time resident next to the park – for 50 years – and it is not as heavily used as it was years ago. We need to encourage heavier and wide-spread use again.

e. Town of Chili and Gates should be involved in the community input process. Genesee Valley Park West is used by these towns as well.

f. Discussion on how park land has been given to developers or used for non-park purposes. This needs to stop happening. Discussion on how and why the hotel happened and how to prevent something similar from happening in the future.

g. Request for the City to be fully open about the details of this project and listen to constituents, no more lip service. PLEX suffered the consequences of the hotel deal and the loss of parkland.

h. Restrooms for trail users and others passing through the park or using the recreation fields is critical. The port-o-potties are occasionally provided in the summer but they are awful and ugly and often get vandalized.

i. The area north of the 390 flyover, south of the canal, west of the river, and east of Scottsville Road should be cleaned up and incorporated into the park.

2. CIRCULATION, TRAILS

a. We used to be able to drive through from Plymouth Avenue, now it is a one way in and out. It's confusing. What will this plan do to draw more people to use the park? Part of this reduced use is related to the condition of the ballfields (north of Elmwood) and the reduced connectivity to the park from the north when Plymouth Avenue was cut off.

Brooks Landing Phase II Public Improvement project will be improving the connection between the Brooks neighborhood and Elmwood Avenue through the park along the former Plymouth Avenue. There will be two way access to/from the park from Elmwood Avenue north to a turn-around, but only a one-way southbound connection from the public access easement, through the hotel parcel, and south to the turnaround.

b. Intersection at Elmwood to enter the park is badly designed and dangerous. It is very hard for people to cross and there is an issue with the traffic signal.

c. The entry into the park is confusing from Elmwood. It's very dangerous and hard to understand.

d. Need greater separation of vehicular from pedestrian. Vehicles often drive onto the internal park paths to access more remote locations.

e. Trail users get lost and have to often ask for directions when cycling through, especially canal trail users. There are serious way finding issues that need to be resolved to make it more clear for trail users.

f. Trail users have a hard time finding the Genesee Valley Greenway where it intersects with Scottsville Road. The trail system is disjointed. The Genesee Valley Greenway begins in GVP and extends to the south, off-road, until it meets Scottsville Road. From here it is on Scottsville and Ballantyne Roads for about a mile before it is once again off-road. From this point one can travel on the old rail bed all the way south to Sonyea, about 36 miles. Since you point out that GVP is the hub of all these regional trails it is imperative that the City reach out to the Friends of the Genesee Valley Greenway, the town of Chili and others to complete this connection.

The Genesee Transportation Council's Regional Trails Initiative - Phase - Final Report and Action Plan from 2002 lists this connection as "Currently Under Development". It lists the implementing agency as NYS Office of Parks, Recreation, and Historic Preservation and shows funding of $250,000 through a 1995 TEP grant and RG & E Consent/Court Order funding. It is unclear why this was not implemented. The GTC will be updating this plan, starting this year, and specifically looking at gaps in the regional trail system. This should be a priority gap to close.

g. If trail network is improved it would help make the park more accessible without driving cars and would be heavily used.

h. Genesee Valley Park West needs to be a gateway to the City from the south. City needs to work on connectivity with adjacent trails.

3. SPORTS / RECREATION

a. Do not take the ball parks away.

b. Ball fields need to be improved.

c. A large baseball complex would feel very commercial. Would prefer a park-like setting with sports fields, not a large "complex".

d. Water is settling on the baseball fields north of Elmwood Avenue and limiting their use for the neighborhood. This needs to be fixed now. It is a very important issue for the entire neighborhood and the ball fields are an important activity for the neighborhood youth.

The Brooks Landing project is developing design and cost alternatives for the improvement of the ball fields.

e. Discussion was held on preference for small-scale "sand-lot" style baseball fields vs. base ball "complex" with facilities. One attendee preferred small scale baseball fields, another would like to see something in between small-scale "sand lot" and a major ball field "complex."

f. Instead of having big bleachers for ball fields, why not incorporate grassed terraces like at the Saw Grass Gold Tournament.

4. <u>WATER ACCESS / BOATING</u>

a. Would like to see more accessible boat launch for vehicles.

5. <u>HISTORY / CULTURAL</u>

a. Enjoyed the historic park development presentation and the attention paid to the park's Olmsted legacy. Don't want to repeat the same mistakes of the past with continually adding new infrastructure to the park based on styles and trends that will end up looking dilapidated and going against the ideals of Olmsted's original design.

b. Happy to see the significant work done on the historic research and the important Olmsted connection. New park features should really cherish the philosophy of Olmsted. Olmsted plans were beautifully drawn and it would be nice to see that level of work applied to this master plan.

c. Need to restore Olmsted's vision, stop staying from it and ignoring it like we have in the past. Every decision we make should be based on that original vision. The City has ignored it for too long and we have to say 'no more please.'

The team has spent a good portion of time in this investigations phase to fully explore and document the park origins, development and Olmsted history. These findings will be used to inform the design while still meeting the needs of present day

and future users.

d. Are there any other Olmsted Parks with 6-lane highways built through them?

The one that comes immediately to mind is Delaware Park in Buffalo. It is an Olmsted park and was divided in a similar fashion by the Scajaquata Expressway. The major difference is that the Scajaquata is at grade, not elevated like 390.

6. ENVIRONMENTAL / ECOLOGICAL / VIEWS

a. Noise pollution from I-390 is bad. Would like to see something done to reduce this and make the park more peaceful. How can we reduce this noise? Would like to have areas that are quiet and meditative.

There is little that could be done in the park to reduce this expressway noise. Any likely solution would involve changes to the expressway itself (i.e. surface changes, noise walls…). Since this is a state facility, coordination with the NYS Department of Transportation would be required. This issue will be documented in this report and shared with the NYSDOT. When the NYSDOT next makes improvements to the 390 fly-over the City will be able to point to this report recommendation as a reason to address the issue.

b. I envision beautiful nature as a background for sports and athletic fields. I would like to see special areas for preserving woodlands, old growth trees, and natural communities.

c. Nearby developments like Brooks Landing removed lots of vegetation from the park and opened up awful views from the old Genesee Valley Canal and Rail Road corridor.

d. Is the island sediment north of Elmwood Avenue going to be dredged out to remove the natural vegetation that has grown there? This should not be done. Leave the river natural.

e. Keep the Genesee Valley Canal / old rail road corridor treeless and free from disruption from stripmall-esque development. How can we screen of buffer the views of the hotel development? Similar to the buffering from the trial to the ice rink.

f. The tree inventory and age categorization are very interesting and should be used to inform the park design.

-END-

Please notify Bayer Landscape Architecture of any errors or omissions to these meeting minutes.

Zakery Steele, ASLA
Bayer Landscape Architecture, PLLC
zds@bayerla.com

Attachments: *Meeting Sign-In Sheet (3 pages)*
Written comments (1 page)
Meeting Notice (1 page)

GVPW MASTER PLAN — SIGN-IN SHEET

PUBLIC MEETING 5.9.13

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Rich DeSarra	
DOUGLAS HOLLEY	
Edward Cramp	crampe@pas.rochester.edu
Sheila Driscoll	driscollrctv@yahoo.com - Put out a sign next time - very difficult to find open door + meeting room. Not a very "public" meeting.
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COMMENTS? / WHAT WOULD YOU LIKE TO DO IN THE PARK?

Sound barriers on the highway

Bike to & from the Gen Valley Greenway
Most travelling on Scottsville Rd.

GLRR corridor — keep it treelined and free of disruption. From strip mall-esque development.

City of Rochester
Department of Environmental Services
City Hall Room 300B, 30 Church Street
Rochester, New York 14614-1290
www.cityofrochester.gov

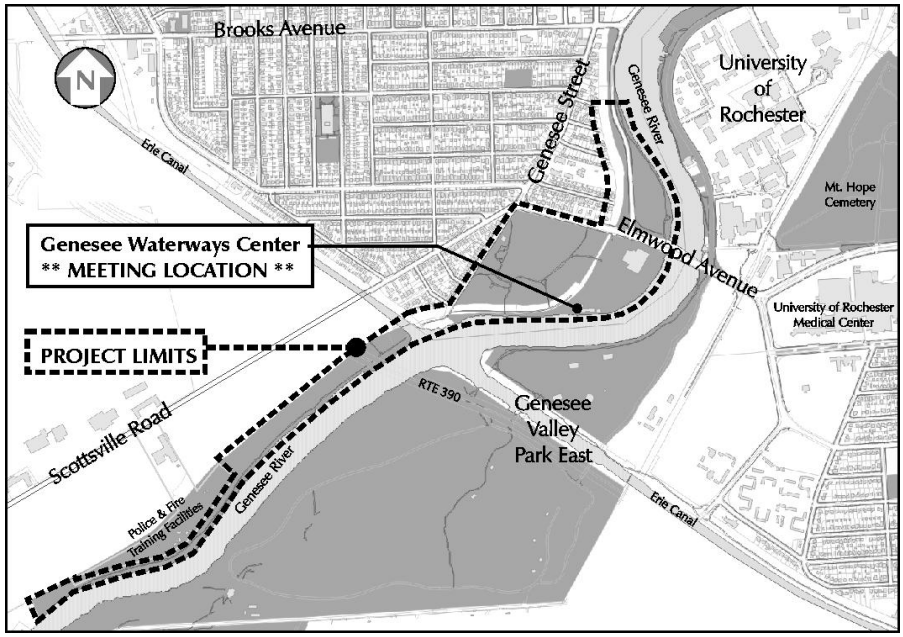
Bureau of Architecture and Engineering

PUBLIC INFORMATIONAL MEETING NOTICE

Re: **GENESEE VALLEY PARK WEST MASTER PLAN**
Project Limits: The entire portion of Genesee Valley Park west of the Genesee River.

DATE: Thursday, May 9, 2013 **TIME:** 6:00 – 8:00 P.M.
LOCATION: Genesee Waterways Center – Genesee Valley Park

The City's Bureau of Architecture & Engineering will hold a public informational meeting to discuss the **Genesee Valley Park West Master Plan** project. The meeting will begin with a presentation by the design team to introduce the project and present their initial inventory and analysis findings. After an initial question and answer period the design team will break-out to various display board stations to discuss the project in a small group setting. The project design team will be available to explain the project, answer your questions and record your feedback. The City is particularly interested in learning how you use the park now and how you would like to see it used in the future.



Please attend this important meeting. We look forward to meeting you and welcome your comments. If you require special arrangements for the meeting (interpreters, facility accessibility, etc.) or further information on this meeting, contact: Jeff Mroczek, Project Manager, at 428-7124 or mroczekj@cityofrochester.gov.

James R. McIntosh, P.E.
City Engineer

This document was prepared for the New York State Department of State, Division of Coastal Resources, with funds provided under Title 11 of the Environmental Protection Fund.

Genesee Valley Park West Master Plan

City of Rochester, Project #20042, NYSDOS #C006965

Advisory Meeting #2 - Minutes

Date: July 24, 2013, 2:00-4:00 PM

Location: Genesee Waterways Center, 149 Elmwood Ave, Rochester NY 14611

A. ATTENDANCE

Name	Representing	Contact / Email
Sheila Bazil	Community	sheila-bazil@yahoo.com
John Curran	Community	jecurran@rochester.rr.com
Cattlin Mieves	Landmark Society	cmeives@landmarksociety.org
Jeff Mroczek	City of Rochester	mroczekj@cityofrochester.gov
John Picone	City of Rochester	piconej@cityofrochester.gov
Peter Siegrist	City of Rochester	peter.siegrist@cityofrochester.gov
Cindy Stachowski	Genesee Waterways Center	cstachowski@geneseewaterways.org
Mark Bayer	Bayer Landscape Architecture	mhb@bayerla.com
John DeMott	Resident	jnj_demott@juno.com
Florence Clemmons	Genesee Valley Little League	Florence-Clemmons@hotmail.com
Rod Simmons	Genesee Valley Little League	Rodsims@frontiernet.net
Zakery Steele	Bayer Landscape Architecture	zds@bayerla.com

B. MEETING CONTENTS

1) Introduction and Project Update

a) Jeff Mroczek gave a brief introduction to the group noting the progress since the last meeting and summarizing the next steps in the process.

b) Zak Steele followed up with more detail on the work accomplished since the group last convened and summarized the individual inventory and analysis sections that are nearing completion:

(1) general inventory and analysis, (2) building conditions reports, (3) waterfront condition report, (4) hydrological analysis, (5) cultural landscape report and treatment recommendations, and (6) programming.

He noted that all of these items will be consolidated into a final Inventory & Analysis report to be submitted in mid-August.

2) Recap of Public Meeting Comments from June

A) Zak touched on the significant items from the first Advisory Group meeting. They are as follows:

1. Underutilized – Park needs to be more heavily used, not as heavily used as it was years ago
   Restrooms for trail users / recreation field users
2. Clean up area near I-390 flyover – incorporate into park
3. Elmwood entry intersection needs to be redesigned – dangerous, confusing
4. Greater separation of vehicles and pedestrians in park – limit vehicle access to areas, remote areas of the park
5. Trail users getting lost – need wayfinding, circulation
6. Genesee Valley Greenway is incomplete (dangerous)
7. Ball fields need to be improved (drainage, amenities, maintenance)
8. More accessible boat launch for vehicles (better hand-carry access)
9. Don't repeat the same mistakes – going against the principles of Olmsted's design
10. Need to restore Olmsted's vision, ignored for too long – make all decisions based on the original vision

11. Would like to have areas that are quiet and meditative – I-390 is noisy
12. Want beautiful nature as a backdrop for athletic fields – create natural communities
13. Screen views of Brooks Landing from park – development opened up negative views
14. Do not dredge out the island sediment from the river, leave it natural
15. Keep the Genesee Valley Canal / rail corridor treeless and free from incompatible development
16. Use the tree inventory data to inform the park design

3) Conclusions and Guiding Principals

A) The bulk of the meeting was spent reviewing the significant conclusions and guiding principles from the inventory and analysis work. Zak summarized the 10 major conclusions from this phase of the project:

1. Park Features and infrastructure should contribute to and enhance the park's role as a multi-modal crossroads
2. Rethink spatial organization of park features that are no longer constrained by past limitations (rail line)
3. Renew park ties with significant history and re-establish visual ties between east and west
4. Modernize building facilities to meet current and future demand
5. Re-prioritize and enhance sports fields, playgrounds and picnic areas
6. Establish a local benchmark for how park land should interface with the river, include green infrastructure, and enhance the ecological recreation experience.
7. Plan circulation and facilities infrastructure to promote both the neighborhood and the regional draw.
8. Respond to the health care and fitness crisis by focusing on wellness and developing new public-private partnerships.
9. Plan facilities and programming should accommodate multi-generational, multi-purpose, and long term recreation trends.
10. Focus on exceptional experiences and attractions to the park over perceived demand and recreation standards

NOTE: See Conclusion and Guiding Principal Handouts (5 sheets) on the Project Website

4) Group Comments and Discussion

A) The following comments and questions were put forth by the group:

1. Peter posed a question to the group: Does the Skating Rink and pool complex really belong in this park – are these appropriate uses, and should they be maintained here long term?
2. Florence asked about the possibility of incorporating a synthetic turf field into the park as it dramatically extends the playing time on the field, and seasons of use, without adversely impacting the field. She said that she was very impressed by a field in Maryland that her son played on.
3. Several in the group noted that baseball fields 5 and 6 are not useable due to poor drainage.
4. Florence noted that there is a Cricket league forming on the east side of the park.
5. The group also discussed a fairly active Frisbee league and the fact that it disturbs one or more of the ball fields.
6. Florence mentioned that a concession stand would be a nice thing to have in the park. John Curran said that food trucks might be a reasonable alternative to a concession stand.
7. John Curran mentioned that berry picking is a worthwhile activity to promote along the trails.
8. The group discussed the need for a more accessible launch for small motorized boats for emergency use.
9. Sheila noted that part of the beauty of the park is its tranquility due to the lack of heavy motorized boat traffic and other distractions.
10. Cindy confirmed that visits by motorized boats to this section of the river are fairly infrequent which makes it nice for the rowers at the Waterways Center.
11. John Picone noted that outdoor Fitness / workout stations with fairly sophisticated equipment are becoming quite popular, and that the City has installed these in several places including Carter St., Maplewood, and Durand.
12. Cindy noted how heavily used the Pittsford indoor rowing facility is and that there is definitely demand for more of these facilities.
13. Zak and Florence noted that unprogrammed space for Dancing and other similar activities is important.

5) Programming Discussion

A. The meeting concluded with a review of the programming handout which is essentially a list of the many possibilities for features and programs to be included in the schematic master plan alternatives for the park. This list represents a starting point; these elements will not all be deemed appropriate after further study and review. Many of the elements may not make the final program list.

B. After briefly reviewing the list with the group, Zak requested that participants take a closer look on their own and follow up with further comments and suggestions.

NOTE: See the Program Development sheet Handout (1 Sheet) on the project website

6) Next Steps

A. Bayer Landscape Architecture will be completing the final edits to the Inventory and analysis sections of the master plan. The Design Program for the park will continue to be refined based on further community input, and will be the basis for the development of the schematic design alternatives over the course of the late summer and fall with a potential review meeting in mid September.

END of MINUTES

Please notify Bayer Landscape Architecture of any errors or omissions in these meeting minutes.

Mark H. Bayer, ASLA
Principal
Bayer Landscape Architecture, PLLC
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This document was prepared for the New York State Department of State, Division of Coastal Resources, with funds provided under Title 11 of the Environmental Protection Fund.

Genesee Valley Park West Master Plan

City of Rochester, Project #20042, NYSDOS #C006965

Advisory Meeting #3 - Minutes

Date: November 13, 2013, 2:00-5:00 PM

Location: Genesee Waterways Center, 149 Elmwood Ave, Rochester NY 14611

A. ATTENDANCE

Name	Representing	Contact / Email
Sheila Bazil	19th Ward, Community	sheila-bazil@yahoo.com
John Curran	PLEX, Community	jecurran@rochester.rr.com
Caitlin Meives	Landmark Society WNY	cmeives@landmarksociety.org
Jeff Mroczek	City of Rochester, DES	mroczekj@cityofrochester.gov
John Picone	City of Rochester, DRYS	piconej@cityofrochester.gov
Peter Siegrist	City of Rochester, City Planning	peter.siegrist@cityofrochester.gov
John DeMott	Sector 4 CDC	jnj_demott@juno.com
Mark Bayer	Bayer Landscape Architecture (BLA)	mhb@bayerla.com
Zakery Steele	Bayer Landscape Architecture (BLA)	zds@bayerla.com

B. MEETING CONTENTS

1) INTRODUCTION AND UPDATE:

Jeff Mroczek gave a brief introduction to the group. Bayer Landscape Architecture (BLA) followed up with detail on the work accomplished since the group last convened, including:

a. Completion of the Cultural Landscape Report for the park; now included in the complete Inventory & Analysis document
b. Completion of hydro-geological assessment of the river edge and docking facilities; now included in the complete Inventory & Analysis document
c. Completion of the Inventory & Analysis report; currently being reviewed by the City and being made electronically available to committee members
d. Development of recommended Preliminary Park Treatments and historic rehabilitation areas
e. Development of recommended “Site Character Zones” – the proposed organization of the park’s future development.
f. Development of “Park Character Concept” alternatives, including 3 alternate proposals delineating areas for park facilities, levels of infrastructure and community connectivity.
g. Recommendations of appropriate architectural styles for the park, for a new boat house or other future facilities
h. Development of alternative schematic development sketches for each Character Concept

2) DISCUSSION OF BACKGROUND / CONTEXT:

BLA reviewed background information regarding the historic and recreational context, outlining the basis for specific treatments, broad rehabilitation proposals, and proposed park character concepts. These included the long term desire to reclaim the visual intent of Frederick law Olmsted’s “river plain” and reduce visual disruptions along the river while providing both traditional and water-based formal recreation opportunities.

3) PRELIMINARY PARK TREATMENTS (see meeting handout, page 1):

BLA reviewed and discussed broad treatment goals of the preliminary master plan for specific sites with the Committee, which are proposed to be incorporated into forthcoming alternative concepts designs. These include:

a) **Training Facility:** Enhanced and more naturalized buffering treatments and alternate trail alignments along the Public Safety Training Facility periphery (short term). Relocation of training facilities out of park as long term goal.

b) **Preserve South Woodland / Enhance Ecology:** South woodland areas (south of I-390) to remain wooded, but include trail enhancements and vegetation management / development of views to the river.

c) **Chili Parcels to Buffer Park:** Proposed addition of Chili parcels along Scottsville Road to contiguous parkland to preserve visual buffering (from adjacent airport and industrial uses, or future industrial development) and enhance ecological health (through green infrastructure, designed stormwater treatment) of the river-edge and woodlands south of the Barge Canal.

d) **Mitigate I-390 Impacts:** Landscape, artistic, or other aesthetic treatment of land underneath I-390 overpass.

e) **Restore Pedestrian Bridges:** Full restoration of the Olmsted pedestrian bridges over the Barge canal (including bridges on the east side of river). Also stabilize and enhance historic PennNY rail bridge for future Genesee Valley Greenway ped/bike use. The rail bridge would also allow ADA access across the canal, while the proposed restored Olmsted bridge would not meet ADA slope requirements.

f) **Relocate Dredging Equipment:** Dredging equipment from canal operations should no longer be parked at river overlook on northwest side of canal-river intersection. The intersection is an icon of the region's park system and special view preservation and enhancements should be implemented.

g) **Integrate Community Facilities into the Neighborhood:** Facilities and structures most-used by the community should be clustered at the periphery of the park – near Elmwood and Genesee at the parks most important and genuine connection to the neighborhood. The most heavily-used facilities should be located where they can be integrated into the community and become part of the neighborhood fabric rather than civic recreation facility "islands" set away from the neighborhood along the river.

h) **Preserve Significant Trees:** Significant trees should be preserved, particularly on the wooded knoll and high point of the park.

i) **Rehabilitate the River Plain:** The viewsheds across the river plain – from the east to west sides of the river (particularly south of the Elmwood bridge) – should be rehabilitated to the original Frederick Law Olmsted design intent. The intent being to screen and/or remove as many man-made structures and high-visibility infrastructure as possible, thereby reestablishing a place along the river (and from within the river itself, via boat) where the community can experience the natural pastoral beauty of the winding river within the heart of the city.

j) **New Park Entry:** The main park entry from Elmwood Avenue should be redesigned to enhance the safety and visual quality of the park's "street frontage" and entry. The traffic pattern is currently inadequate and requires dangerous turning movements for all vehicles entering the south side of the park. It should be noted that the existing signal light cannot accommodate a complete intersection alignment (two-way in and out) without modifications to the swimming pool and or sports complex building entry area. The building is too close to the intersection. Possible new entries should be explored, including elsewhere along Elmwood Avenue, or the long-term relocation of facilities.

k) **Brooks Landing Phase II:** Consideration should be given to the reality that the Brooks Landing Phase II project is underway and in the construction documents phase, which includes park improvements north of Elmwood Avenue.

The pending improvements in the Brooks Landing Ph II project limit the ability to fully rehabilitate the park to Olmsted's original desin intent and relationship to the City (all structures north of Elmwood), at least in the short term.

l) **Screen Brooks Landing Developments**: Landscape and buffering treatment should be established at the north end of the park to screen the view of new developments at Brooks Landing, including the existing hotel and the proposed residential tower. This proposed treatment is aligned with the park's historic design intent – to screen out mad-made structures from view while in the park.

4) CONCEPT CONSTRAINTS (see meeting handout page 1):

Advisory committee and BLA reviewed the park's significant constraints, that BLA believes will ultimately drive important concept design decisions. These include:

a) **Preservation of Trees:** The significant trees are an important experiential, aesthetic and ecological component of the park. To reconnect the two sides of the park from a circulation standpoint it may be necessary to remove some trees. It may also be beneficial from a historic and visual enhancement standpoint to remove limited vegetation and trees to open up views. However, the most significant historic trees, trees on the wooded knoll, and trees that are actively buffering adjacent residential uses should be preserved where possible. Tree preservation will influence long-term circulation decisions.

b) **Genesee Street as One-Way:** Genesee Street is currently one way and includes park vehicular access (to the tennis court parking area) but requires one-way out though residential streets and un-signalized left turns onto Scottsville Road. Future park circulation will need to address this, possibly by taking better advantage of the Elmwood Avenue frontage and reducing or altering traffic flows off Genesee Street.

c) **Existing Pool and Ice Rink Building – Entry Realignment:** The current proximity of the existing pool and recreation building to the existing intersection at Elmwood Avenue prohibits future realignment of the intersection. Realignment is highly desirable for safety and circulation reasons.

d) **Brooks Landing Phase II Nearing Construction Phase:** A complete long-term park rehabilitation might include locating the park's major infrastructure closer to the City core and closer to existing developments at Brooks Landing and the University of Rochester River Campus facilities. This was Frederick law Olmsted's original design intent as well – that the more intensive recreation infrastructure would be located in the "ante-room" or park "approach" north of Elmwood Avenue. The project investment in Brooks Landing Phase II, which is nearing the bidding phase and was designed prior to the park's master plan, makes this master alternate plan approach more challenging, at least in the short term.

e) **100-Year Flood Plain:** A significant portion of park land located north of Elmwood Avenue is situated within the FEMA 100-year flood plain. Any structures or land form modifications would require additional review and permitting, including requiring possible designed-allowance for flooding elsewhere. Recent soil percolation tests have shown that the ground water is not as high as expected in most areas but percolation is slow in selected locations. Beyond poor soil conditions, the existing drainage issues in the ball fields can at least partially be attributed to existing grading or the failure of a nearly 100-year old system of clay drain tile installed during the barge canal construction era.

f) **Sanitary Force Main – Utilities:** The former railroad right of way now includes a large diameter sanitary force main and utility easement through the length of the park. No new buildings should be proposed for this corridor, however this does not prohibit parking or other recreational or circulation features from crossing the utilities.

5) RECOMMENDED CHARACTER ZONES (see meeting handout, page 2):

Advisory committee and BLA reviewed and discussed the proposed organization of the park's future development, represented by "site character zones" which establish recommended areas of preservation, buffering, opportunities for facilities to incorporate into the neighborhood fabric, and areas where the Olmsted-design integrity is proposed to be reestablished.

6) PARK CHARACTER CONCEPTS (see meeting handout, page 3):

Advisory committee and BLA reviewed and discussed (3) alternate master plan approaches to locating facilities and infrastructure. The concepts delineated areas for various levels and intensities of park infrastructure, which adhere, in varying degrees, to the recommended park character zones. The three alternatives included: (A) Structures North of Elmwood, (B) Retrofitting Existing Structures, and (C) Structures Into the Neighborhood Fabric. BLA proposed that, given the current site constraints, and the benefit and importance of integrating future recreational facilities into the neighborhood, Character Concept "C" was the most appropriate and beneficial.

7) ARCHITECTURE STYLES (see meeting handout, page 4):

Advisory committee and BLA reviewed and discussed examples of architecture styles that are recommended as appropriate to the park's historic Period of Significance. Due to the extensive redevelopment of the park through time and the importance of various periods, it was determined that the park's Period of Significance is uniquely stretched from 1890 to 1940 (WWII). This included both the park's pastoral Olmsted origins, the period of recreational advancement, the park restoration during barge canal construction and the significant Works Progress Administration-era facilities. It was noted that, except for significant trees, some historic land forms, and the Olmsted-era pedestrian bridge (designed in 1910-12, constructed 1917-1920), no features or buildings exist from any historic period in GVPW.

Considering the park's history and future use, the recommended architecture styles fell into 4 categories: (1) A contemporary / modern take on WPA-era architecture; using materials of the period with more refined and simple forms of contemporary design. Examples shown included Tahoe Transit Center by WRNS Studio. (2) Works-Progress Rustic; a traditional architecture styling that resembles 1930s-1940s regional park improvements. Examples included the Buffalo Zoo Entry Court, Forest Park Boat House in St. Louis, and the Refectory that formerly existing within GVPW. (3) Historic Styles within the Park; which varied widely in style and period (1892 to 1930s), and included the grambel roofed athletic club, the octagon-shaped public athletic building, the Durand Boat House. (4) Contemporary Low-Profile Buildings; which although foreign to the park's period of significance, have been considered compatible with significant Olmsted parks in other cities (Lakeside Skating Center in Prospect Park) if done well. The architectural design would focus on integrating itself into the natural surroundings and letting the park's landscape dictate the forms, materials, and relationship to natural features, take advantage of designed views, and may emphasize sustainable elements such as green roofs, or other energy conservation features.

8) GENERAL DISCUSSION NOTES:

a) **I390 Overpass:** The I-390 overpass was a concern area, noting that sometimes metal from accidents (or snowplows pushing debris over the guardrail) falls to the trail area below.

b) **Canal Corp Dredging / Parking:** The Canal Corp does not park their dredging equipment at the park in the winter. Discussion needs to be had with Canal Corp on where this goes during the off-season, where it can be moved in the future so as to not impact the park during the rest of the year, and the need for access of the park areas used (for parking by canal employees).

c) **Boat House Location:** It was proposed that location selection for the boat house include the non-park parcels in Chili (along the south side of the canal) or the river edge park land just south of the Olmsted bridge. All agreed it was an intriguing place for the boat house as it removed the infrastructure from the river plain, reinforcing Olmsted's original concept. There are many benefits and constraints to various boat house locations. Need to establish consensus from rowing community on where they would prefer the boat house.

d) **Boat Recreation History:** It was noted that the park has always supported boating as a recreational amenity, even in the Olmsted-era, but the required infrastructure has changed in visual and use intensity. If the boathouse can be pulled back from the river edge and additional boat-specific improvements can be made (larger boat staging area), then perhaps it can still be located along the river in the heart of the park. The detailed site design will be important.

e) **Increase in Boating Facilities – Need for Plan:** It was noted that rowing has increased significantly in popularity and 3 boat houses have popped up along the park river front in the past 15 years alone (Genesee Waterways Center, Genesee Rowing Club, new boat house in basement of forthcoming residential tower at Brooks Landing). Concern was expressed over development of historic park riverfront into a "boathouse row." A plan should be put in place noting where appropriate areas are for these uses.

f) **Recreation Demand and Best Use of GVPW Land:** A discussion was held about recreation demand and specific facilities needed. According to recreation guidelines based solely on population (which are, admittedly by the guideline authors, not always appropriate metrics), the city has a surplus of most facilities except for tennis courts. It was discussed that, based on the historic nature of the park, the river as the unique and significant feature, and the limited available land area, the most appropriate level and mixture of recreation facilities for GVPW is one that promotes a smaller collection of superior quality facilities. Rather than combine every possible recreation field and feature into a topographically complex and historic landscape that cannot support it, let the demand exist for use of the best and most unique facilities in the City. It was noted that the riverfront landscape of GVPW is not the same as open flat farmland in Victor or Henrietta, and perhaps the park's master plan should recognize this and design within these constraints.

g) **Water Recreation as the Focus:** The park's most significant asset is the river – and, from a recreation standpoint, offers the only (and most unique, with both river and canal access) small-craft opportunity in the City in terms of public access to boating and water sports within a traditional dense urban neighborhood. Therefore, the recreation component of the park should potentially focus on taking advantage of this resource in a visually and historically appropriate way.

h) **Preferred Character Concepts (A and C):** The Committee felt that Character Concepts A and C were intriguing concepts, though with uncertainties about levels of traffic, architecture styles or other current unknowns.

i) **Not Significant Advantage to Concept B:** It was generally felt that there was no significant long-term advantage to "Character Concept B" (Retrofit Existing Structures). It was described as the "status quo". The main advantage would be cost, however it had no obvious long term benefit to the historic park or the neighborhood.

j) **Link to Existing Development:** Moving the significant infrastructure and facilities north of Elmwood Avenue (Character concept "A") made sense in terms of linking it to the urban development happening at Brooks Landing and existing infrastructure and buildings across the river at the U of R. it also most closely reflects Olsmted's original plan for the park.

k) **Fixing Drainage Problems:** Character Concept "A" (structures north of Elmwood) would fix the drainage problems through the redevelopment efforts.

l) **Connect North and South Park Lands Across Elmwood:** It was proposed that the park lands north and south of Elmwood be better connected through a pedestrian bridge or other circulation mechanism to tie the park areas together from a user standpoint. BLA noted that the Elmwood Avenue bridge has been rebuilt 3 times in the last century and that changes could be made during the next bridge reconstruction to expand the land before the abutment met the bridge deck, allowing a significantly wider park area (rather than just a trail skirting the abutment) to be developed under the bridge. This would give broad visual and circulation access from either side of the park providing a safer and more pleasing connection between the north and south sides.

m) **Unknowns Regarding Buffering and Infrastructure Near Neighborhood:** There was both interest and concern was expressed over the relocation of recreational buildings to the corner of Elmwood and Genesee Street (Character Concept "C"). The benefit of having the most heavily used facilities integrated into the neighborhood was discussed, but there are worries about the buffering from adjacent residential uses, what the buildings would look like and how they would be accessed.

n) **Importance of Calming Traffic on Elmwood:** Discussion on the value of placing community buildings at the Elmwood-Genesee St-Scottsville Rd intersection because it's so noisy and the traffic is very intense. The importance of proposing a traffic calming solution along with option "C" was discussed. It was felt that by making the corner into a neighborhood recreational building that is used every day – additional pedestrian improvements would be very beneficial to slow traffic and make it easy to cross the intersection. Comment was noted that while the Elmwood frontage of the park is pleasant from a vehicular standpoint that it is too noisy for general park use. Pushing the intensive uses to this area may group like uses (active with noise) and help block/buffer noise to the more passive internal use of the park.

o) **Determine I-390 Impacts on Elmwood Traffic:** It was determined that the traffic along Elmwood Avenue and the Scottsville/Genesee St/Elmwood intersection should be addressed in the master plan. The traffic is too intense, too fast, and disconnects the park from the neighborhood at the precisely the one location where the park actually has the potential of deeply connecting to a neighborhood. The I-390 ("Access 390") improvements along the freeway on the other side of the river (Kendrick Rd) may have a significant positive impact on the traffic along Elmwood – by reducing commuter traffic from the University and Medical Center using Elmwood Avenue to get to the Scottsville Rd 390 on-ramp. It will be important to see if there are traffic forecasts for Elmwood post-Access390 construction, which may allow us to propose more innovative and important treatments to Elmwood Avenue itself.

p) **Parking:** Discussion was held on reducing parking in the park by providing on-street parking on Elmwood and Genesee St, or incorporating a park boulevard around the perimeter of the park that would allow street parking. The challenge of placing parking on streets along Elmwood is the relatively high traffic volume and limited street frontage against the park. Genesee St is also one-way. A park boulevard around the perimeter would likely impact the beneficial tree buffering that has established over the years. All agreed that breaking up parking into smaller pods, working with the topography, and blending them into the landscape was an appropriate approach. Once again, considering the long-term forecast for traffic on Elmwood Avenue, uniquely positive changes could be made to the streetscape allowing parking, bike boulevards or other neighborhood friendly street features.

9) NEXT STEPS:

Bayer Landscape Architecture will address comments and carry forward two schematic alternative plans representing the proposed treatments, and addressing comments and concerns.

END of MINUTES - Please notify Bayer Landscape Architecture of any errors or omissions in these meeting minutes.

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This document was prepared for the New York State Department of State, Division of Coastal Resources, with funds provided under Title 11 of the Environmental Protection Fund.

Genesee Valley Park West Master Plan

City of Rochester, Project #20042, NYSDOS #C006965

Advisory Meeting #4 - Minutes

Date: April 2, 2014, 2:00-5:00 PM
Location: Genesee Waterways Center, 149 Elmwood Ave, Rochester NY 14611

A. ATTENDANCE

Name	Representing	Contact / Email
Caitlin Meives	Landmark Society WNY	cmeives@landmarksociety.org
Matt Maloney	Landmark Society of WNY	Mmalon47@frontiernet.net
Cindy Stachowski	Genesee Waterways Center	cstachowski@geneseewaterways.org
Jeff Mroczek	City of Rochester, DES	mroczekj@cityofrochester.gov
John Picone	City of Rochester, DRYS	piconej@cityofrochester.gov
Joanne DeMarle	19th Ward Neighborhood	jddemarle@frontiernet.net
Peter Siegrist	City of Rochester, City Planning	peter.siegrist@cityofrochester.gov
John DeMott	Sector 4 CDC / 19th Ward Neigh.	jnj_demott@juno.com
Mark Bayer	Bayer Landscape Architecture	mhb@bayerla.com
Zakery Steele	Bayer Landscape Architecture	zds@bayerla.com

B. MEETING CONTENTS

1. **Project Update:** Jeff Mroczek and Zak Steele gave a brief status update on the project.
   a. Inventory & Analysis complete, available on City's website
   b. Advisory / City review and selection of preferred Park Character concepts complete, also available on City's website
   c. City has reviewed schematic alternative plans, based on Committee-preferred Park Character Concepts A and C
   d. Park Character Concept B (retrofit existing structures) was discarded based on Committee and City comments
   e. Advisory Committee to review Schematic Alternatives at this meeting and provide comments
   f. Revision of preferred a Schematic Alternative to take place, development of illustrative plans & renderings
   g. Upcoming public meeting to be scheduled once comments are integrated into schematic alternative plans
   h. Development of final master plan after public meeting

2. **Advisory Committee Review & Discuss (2) <u>Schematic Alternatives</u>**
   a. Zak Steele walked the Committee through two alternative schematic plans.
   b. Schematic #1 was presented. It is based on previously preferred Park Character Concept A (Structures North of Elmwood Avenue).
   c. Schematic #2 was presented. It is based on previously preferred Park Character Concept C (Structures into the Neighborhood fabric)
   d. Discussion was held regarding possibility of placing ice rink under or near the I-390 overpass. Access may be an issue.
   e. General concern was expressed for encroachment of non-park activities on the parkland (police/fire training facility, etc.). It was noted that the City's National Park Service agreement restricts this from happening in the future, but the plan should address existing conflicts and recommend long-term removal from the parkland. Both discussed alternatives recommend the future removal of all non-park facilities from the parkland.

f. Discussion on need for a YMCA-like facility and that such facilities exist at U of R. Based on the analysis, there is a need for a more health & wellness, lifestyle/fitness-based public facility to be run by DRYS for City residents. UR facilities are private and neighborhood/city deserves similar level of experience. It was also noted that except for the fitness center, the proposed facilities on the alternative plans only replace equivalent facilities already in the park with more appropriately compatible and higher quality facilities, along with general park improvements to trails, picnic shelters, playgrounds, etc.

g. John P (DRYS) noted that he was not necessarily in favor of an indoor pool. It was suggested that the pool facility at least have an outdoor option or an outdoor pool replace the proposed indoor option.

h. Discussion that location of the ice rink/pool/community center complex N of Elmwood may disrupt the views of some of the terrace streets (Oak Hill, Arvine, Grandview) and some resisrtance may be expected. Same could be said about location in #2. May be worth presenting along with some cross sections and/or building character sketches to establish character and scale in peoples mind before they form own assumption.

i. Do the pool, ice rink and wellness center need to be in one combined facility? There are clear tradeoffs here with one combined facility being most economical from a design, construction and maintenance perspective but more difficult to make blend with the park character. Individual facilities could be dispersed to lessen their impact on the overall park but the overall expense would likely increase.

j. It was suggested that the ice rink be moved out of the park. It was noted that the facility is heavily used and it is the only municipal ice rink.

k. John P noted that relatively few pedestrians currently walk to the ice rink. A facility more integrated into the neighborhood that has fitness and other options would better serve those who don't drive and make it more accessible to the neighborhood.

l. While the master plan cannot directly address Elmwood Avenue right of way design, it was suggested and agreed that the plan should make recommendations to study future implementation of traffic calming measures along Elmwood Ave park frontage. It was noted that Elmwood and Genesee St extension are the only meaningful connection to actual neighborhoods – the rest of GVPW is surrounded by institutions, industrial, airport, other large acreages of parkland, water barriers, etc. Making the park accessible to the neighborhood should be a priority. It was noted that the study will recommend this as a topic for further exploration but think it is important enough to the overall rehabilitation of the park to touch on as part of report.

m. John D noted the neighborhood dynamic is changing, with more renters / students filling properties along Elmwood and Genesee St and the "Genesee St "wedge" area.

n. Peter S asked if there was anything eliminated from the program. Items determined not compatible included a motorized boat launch. Based on the committee's guideline principles, a program approach of "less quantity, but higher quality" facilities was generally maintained. Discussion of park existing in an unique landscape, rolling hills, topography – should be the guiding factor in new facilities. The park is not a flat regional-scale recreation park similar to what is seen on many 100's of acres in Brighton or Victor.

o. John D noted that people use the field house and would like to see it remain or inclusion of another space that provides the same function – an indoor lodge. It was discussed that the existing field house has inadequate access which needs to be address in some ways. Outdoor rentable picnic shelters are also proposed throughout the park. Jeff M noted that DRYS also stated that a replacement facility for the existing field house was a requirement.

p. Question regarding need for wellness center in the park. It was noted that the project research shows that the future of recreation is directly tied to public health and wellness and the programming had been developed by the Advisory committee at prior meetings. Zak S noted that funding for wellness-centered recreation programs will be the bulk of public/grant money available for facilities and program opportunities. GVPW has always been the active recreation portion of the park, but demands and needs for active recreation amenities change over time.

q. John P noted that DRYS is already beginning to accommodate this new demand and recreation model (the focus on health and wellness) in general programming at other facilities. Recreation demand is there for these types of recreational opportunities. Places with individualized recreation opportunities (trails, fitness centers, etc) are in high demand due to inability for families to keep up with incompatible schedule / lifestyle requirements of team sports. This is especially true for two-working parent or single parent households.

r. JoAnne D expressed concern on alternate #2 about disrupting the large open space (ballfields 1-3) and views into the park from Elmwood / Scottsville/ Genesee intersection as it is one of the most accessible and appealing parts of the park visible from the surrounding road network. It was noted that it also provides a large open area for casual / impromptu use.

s. John D asked that additional meetings be held to review these plans. Jeff M will work with John to set something up.

t. Discussion of rowing facilities / boathouse in the park. The existing boathouse was never designed as a boathouse. It was a prk maintenance facility. Demand is there for both rowing and general water-based recreation, which a boathouse provides. Cindy S noted that the Genesee Waterways Center does more than rowing, including public kayak/canoe rentals for the City, facilitating sports tourism events, reaching out to the neighborhood and collaborating with DRYS on water-based recreation programs, which also require DRYS-led swimming skills to be developed. Swimming skills are essential skill and it's especially important in the neighborhoods surrounding the river and the park.

u. Discussion was held on the increased demand for boathouse facilities over the last 20 years. More than 5 boathouses have appeared along the Genesee River in the Rochester area. Discussion of master plan with regard to directing future boathouse development away

from the historic Olmsted view areas that the plan attempts to reclaim.

v. Boathouse locations were discussed. Advantages of moving the boathouse to the south location were discussed, including visibility, ease of access, etc.

w. Generally the committee favors Schematic Alternative #1 (facilities north of Elmwood Avenue)

3. Boathouse Architectural Components

a. A handout from previous Advisory meeting regarding architectural styles was reviewed.

b. Zak S handed out a magazine article about the new ice rink in Prospect Park (also an Olmsted park)

c. LaBella Associates will be preparing boathouse architectural concepts. Cindy S asked that the 2 schematic plans and boathouse locations be reviewed at next GWC board meeting. She will pass along GWC comments after meeting on April 11.

d. Discussion held regarding two architectural concepts. Generally preferred to have two concepts of 1 location as opposed to 1 concept of each location. This to be reviewed with City, GWC and upcoming neighborhood meetings.

4. Other Items:

a. GROC (Genesee Regional Off-Road Cyclists) desire for off-road bike skills area was discussed. All agreed it would possibly be a good fit for the I390 overpass area as that part of the park needs some "ownership" associated with it. It also provides a nearby service for the neighborhood, teaching kids how to ride bikes safely and effectively, as well as in wooded or off-road environments where there is much less experience. It was noted that GROC and DRYS are actively exploring the issue.

5. Outside Interest in the Park's Master Plan

a. Zak S noted that the NY Statewide Preservation conference is being held in the end of April and he will be conducting a field session about the master plan project @ GWC (April 26). Zak noted that the Buffalo Olmsted Parks Conservancy has been very successful in acquiring funding for park improvements based on the Buffalo Olmsted park historic significance – they are ahead of us in terms of organizing over the years, but our system is equivalent as 1 of only 4 complete park systems designed by Olmsted in the US.

b. Zak S said that the Upstate Chapter of the American Society of Landscape Architects was holding its 60th Anniversary event in early May. It includes a two-day symposium a recent PBS documentary on Olmsted and several education sessions about the historic designed landscapes of New York. GVPW will be featured in one of the sessions. A bike and kayak tour is also being led through the park. The event is open to the public (May 1 & 2)

END of MINUTES - Please notify Bayer Landscape Architecture of any errors or omissions in these meeting minutes.

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Genesee Valley Park West Master Plan

City of Rochester, Project #20042, NYSDOS #C006965

Neighborhood Representatives Meeting - Minutes

Date: April 21, 2014, 12:00-2:00 PM
Location: SW Neighborhood Service Center, 923 Genesee St, Rochester NY 14611

A. ATTENDANCE

Name	Representing	Contact / Email
Gloria Edmonds	PLEX	gloriaedmonds@yahoo.com
Joanne DeMarle	19th Ward Neighborhood	jddemarle@frontiernet.net
Sheila Bazil	19th Ward Neighborhood	sheila_bazil@yahoo.com
John DeMott	Sector 4 CDC / 19th Ward Neigh.	jnj_demott@juno.com
Dorian Hall	PLEX	dorian@UnseenEntertainment.com
John Curran	PLEX	jecurran@rochester.rr.com
Jeff Mroczek	City of Rochester, DES	mroczekj@cityofrochester.gov
John Picone	City of Rochester, DRYS	piconej@cityofrochester.gov
Zakery Steele	Bayer Landscape Architecture	zds@bayerla.com

B. MEETING CONTENTS

1. **Notes from neighborhood representatives:** Comments from neighborhood representatives in attendance were provided in a handout (attached).

2. **Parking for recreational facilities:** Parking seemed excessive. Design team agreed and noted that the parking represented the minimum required by the zoning code for the particular uses. In the case of recreational facilities such as the ice rink and pool, this is determined by the carrying capacity of the feature (eg, the pool or rink). The design team and neighborhood representatives agreed that parking should be reduced to minimum general use levels, and not be designed for the select few maximum use periods per year.

3. **Visual style of the new buildings:** The architecture for new park facilities should blend into the landscape. The park landscape should take precedence. Structures should have natural light, windows to the river and park views, potential green roofs, and other features that make them more compatible with the park. Example precedents will be provided for the wellness center/pool, the boathouse architecture concepts will reflect these desires.

4. **Safety:** The design team thought one of the benefits of Alt #1 was that with the buildings/pool located north of Elmwood, that residents could filter into and through the park to get to the facilities without crossing Elmwood. The design team perceived that crossing Elmwood as a safety concern due to high traffic volumes and speeds, the width of the road, the number of neighborhood children that use the facilities, and the relative slow crossing timing. The neighborhood representative in attendance hold the opposite concern: using the existing sidewalks along Elmwood & Genesee is the safest route, especially for kids, because they are always visible to the passing traffic. While the crossing signal timing is slow they do eventually change and are safe to use. Travelling through the park is perceived as unsafe specifically because of the lack of visibility.
    a. Study should recommend that the crossing cycle timing at park entry & at Elmwood/Genesee intersection be reviewed by MCDOT to see if improvements can be made.
    b. Neighborhood preference would be for community center & pool be located to be as visible and accessible from Elmwood as possible for the above safety reasons.
    c. Design team still concerned about safety of intersection for pedestrians, as drivers are distracted by the overly confusing park entry and thus less opportunity to notice pedestrians.

5. **Buses:** Bus drop off adjacent to community center & pool is needed.

6. **Outdoor Pool:** The pool is heavily used by the neighborhood, specifically its children. An outdoor pool facility, combined with a spray park is preferred over an indoor/enclosed facility.

7. **Ice Rink:** The existing ice rink is not a facility that is used by the adjacent community. While not opposed to ice skating in general, the neighborhood is opposed to an enclosed rink and its impacts: building mass including associated parking, lighting, utilities, etc… will impact

adjacent neighborhood views to/from park and neighborhood; consumes valuable park land that could be captured for other uses; does not serve the neighborhood, primarily non-neighborhood /non-city residents & teams; impacts historic integrity of park; could be located anywhere if it serves a regional audience as opposed to in an historic park.

8. **Outdoor Rink:** Would not be opposed to a smaller scale outdoor (Manhattan Square Park) or covered seasonal rink with sides open (Prospect Park) to the elements that could be open regularly to the public and used in other seasons for water play/roller blading/roller skating/skate park….

9. **Field house:** A structure of similar capacity, with upgraded aesthetics and amenities needs to be included. Location is not critical as long as there is adjacent parking. Should also be adjacent to a play area for children.

10. **Picnic shelters:** Should include a few both north and south of Elmwood.

11. **Pool** / **Wellness Center Location:** Were fine with the location of the pool/wellness/community center in either location as long as visibility is maximized and enclosed ice rink is not included.

12. **Views of Park from Elmwood/Genesee Corner:** View into park and across the large open field from the Elmwood frontage is a beautiful view that is emblematic of the park and should be preserved as much as possible. Location of any facilities along the Genesee St Ext. edge would need careful thought to minimize its impact on this view and the adjacent neighborhood.

13. **Impacts of ballfield:** The large developed ball field at the Elmwood/Genesee intersection in Alt #1 would spoil the above noted view and present an impact to the adjacent neighborhood.

14. **Lighting:** Lighting (buildings, ball fields, courts) needs to be carefully controlled to prevent spillover into adjacent neighborhoods.

15. **Old Plymouth Avenue:** It was desired that the 1-way southbound (old Plymouth Avenue) proposal of Brooks Landing Phase II be preserved in master plan concepts.

END of MINUTES - Please notify Bayer Landscape Architecture of any errors or omissions in these meeting minutes.

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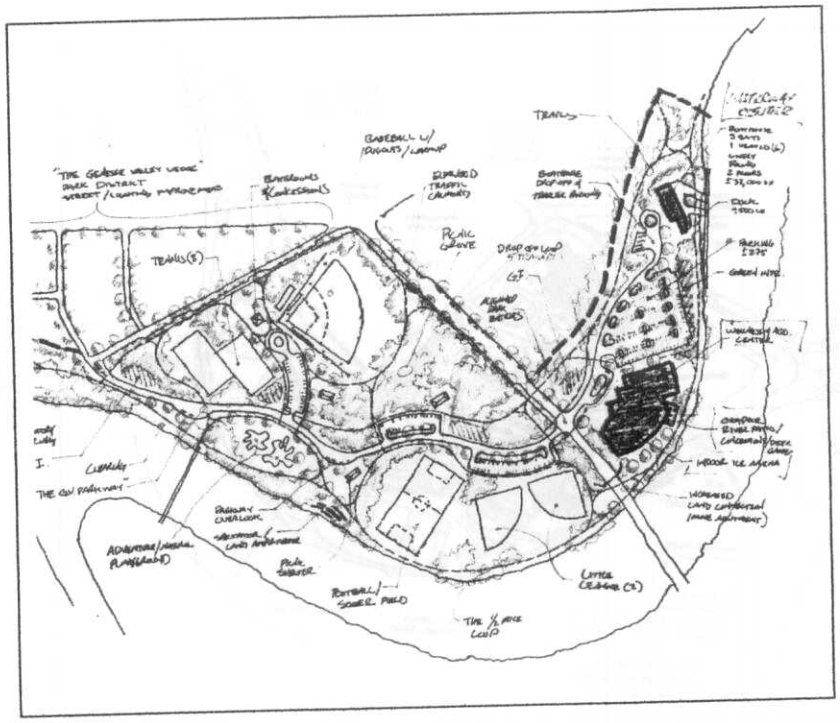
Genesee Valley Park West Master Plan
Preliminary thoughts on Schematic Alt #1 & #2
April 24, 2014

SCHEMATIC ALTERNATE #1



POSITIVES:

1. Boat House location in part of the park least likely to be used by residents for recreation, and closest to the existing commercial development.
2. Less-intense Sports fields are accessible to residents, and visually acceptable along waterfront.

NEGATIVES:

1. Wellness / Aquatic center location is close to desirable residential area.
2. Parking area (275) for Fitness Center seems excessive, unattractive
3. PLEX residents wish to preserve vehicle access from the north.
4. Lighted ball field at Elmwood & Genesee is too intensive a use, and destroys the current attractive view of the park from adjacent residents and passers-by.

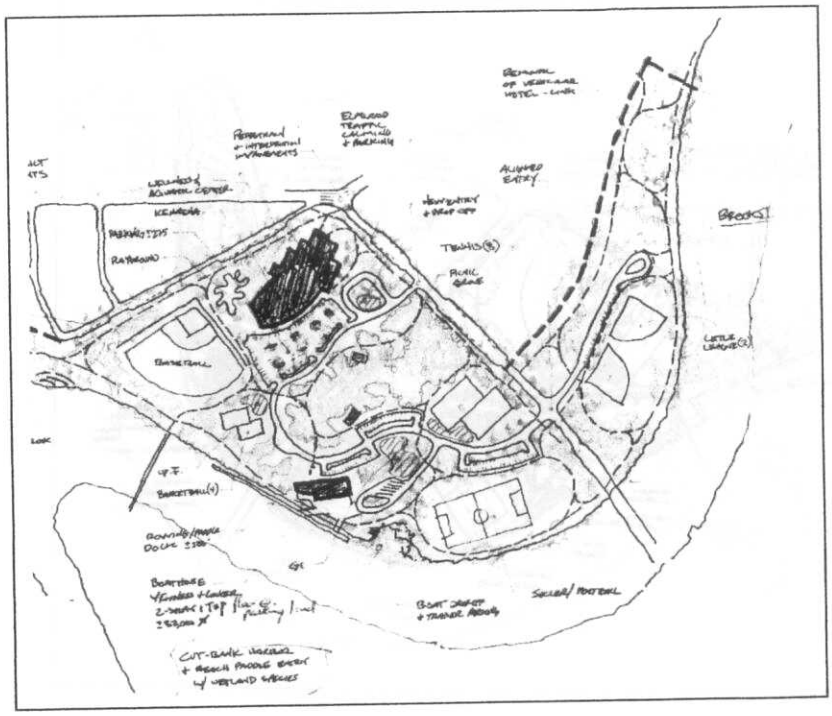
GENERAL:

1. Outdoor Pool is strongly desired by neighborhood youth.
   Can we separate the outdoor pool from the indoor facilities?
2. Concern that Indoor facilities (Ice, etc) are not used by nearby residents, are intrusive and consume valuable park land for their footprint & parking.
   Does this facility really belong in GVP?
3. need to replace Field House

Genesee Valley Park West Master Plan
Preliminary thoughts on Schematic Alt #1 & #2
April 24, 2014

2

SCHEMATIC ALTERNATE #2



POSITIVES:

1. Less-intense Sports fields are accessible to PLEX and Genesee-Jefferson residents
2.

NEGATIVES:

1. Pool location appears too distant from PLEX and Genesee-Jefferson residents. Pool would require RGRTA bus access.
2. Indoor fitness center location is too close to desirable residential area.
3. Indoor fitness center location is visually unattractive, and destroys the current attractive view of the park from adjacent residents and passers-by on Elmwood.
4. Parking area seems excessive.
5. PLEX residents wish to preserve vehicle access from the north

GENERAL:

1. Would like picnic shelters north of Elmwood.
2. need to replace Field House

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Genesee Valley Park West Master Plan

City of Rochester, Project #20042, NYSDOS #C006965

Advisory Meeting #5 - Minutes

Date: April 13, 2014, 2:00-4:00 PM
Location: Southwest Neighborhood Service Center, 923 Genesee Street

A. ATTENDANCE

Name	Representing	Contact / Email
Caitlin Meives	Landmark Society WNY	cmeives@landmarksociety.org
Sheila Bazil	Neighborhood	Sheila_bazil@yahoo.com
Jeff Mroczek	City of Rochester, DES	mroczekj@cityofrochester.gov
John Picone	City of Rochester, DRYS	piconej@cityofrochester.gov
Joanne DeMarle	Neighborhood	jddemarle@frontiernet.net
John Borek	Neighborhood	johnwborek@yahoo.com
Mark Bayer	Bayer Landscape Architecture	mhb@bayerla.com
Zakery Steele	Bayer Landscape Architecture	zds@bayerla.com

B. MEETING CONTENTS

1. Jeff and Zak welcomed the attendees and provided a brief summary of past efforts, goals of this meeting, and activities through project completion.

2. This is the fifth Advisory Group meeting. The DRAFT Final Master Plan and boathouse concepts will be reviewed.

3. One Public Meeting has been held and a second and final Public Meeting is being scheduled. A Public Meeting was scheduled, and notification sent, for April 21st but that meeting is being rescheduled. A meeting cancellation notice will be sent out as will notification of a new meeting date when finalized.

4. With input from this and the upcoming Public Meeting, the Master Plan will be adjusted accordingly and the final master plan will be developed.

5. The grant that is funding the master plan process expires at the end of June, and all documentation must be finalized and submitted by that time.

6. John B. noted that if one of the ultimate goals is to increase the overall usage of the park, user safety (perceived and actual), needs to be included as a guiding principle, possibly included in Guiding Principal 8. Health & Wellness. If people are not, or do not feel safe, then they will avoid the park. Zak noted that it seemed important to include it in the project introduction as an overriding project goal, as all future park development should strive to increase user safety and the perception of safety.

7. John B. noted that there is community concern that the University of Rochester is driving some of the decisions being made in the planning process to serve their needs. Zak noted that the project plans have been developed to provide the best and highest public use as an important public park. The plans being reviewed are a result of extensive input from the Advisory Committee, the public from the first Public Meeting, City Department of Recreation and Youth Services, Genesee Waterways Center, and a thorough study of projected recreation trends and demands. The UofR has not been involved or consulted during the planning process.

8. John B. asked why the ballfields are being located south of Elmwood Avenue. The proposed location is a higher and dryer and significantly less likely to be impacted by fluctuating river or groundwater levels or the 100 or 500 year flood projections. We are also trying to respect the historic Olmsted park design by preserving the sweeping and uninterrupted river and park views connecting the east and west parks across this plane. The ballfields are a minimally visually intrusive element that will help achieve this design intent while still providing active park use.

9. John P. asked if it makes sense to have a complete road connection to Vixette St. or if a dead end with turn-around-loop would be better and less impactful to residents on Vixette St. The design of the new through road will include elements such as tabled crosswalks, narrow lanes, and winding alignment that will not be appealing to general cut-through traffic. The main roadways (Scottsville & Elmwood) and the new Kendrick/390 interchange will remain the easiest and quickest path of travel for commuters. It was suggested that a "No Left Turn" sign from Vixette onto Scottsville Rd might reduce cut-through traffic.

10. Joanne D. noted that the historic tree grove is a place people want to be and if there was a possibility of providing greater access to it. Zak noted that the grove is actually greater than the area enclosed by the walkway along Elmwood, it actually extends from Elmwood south to the tennis/basketball parking area. At past meetings we heard that the desired aces to the grove often resulted in people driving along park paths and parking under the tree canopies. Neither of these is desirable for other park patrons or the long term health of the trees themselves. In response the small parking pod and picnic shelters are provided at the edge of the grove, allowing controlled access.

11. John P. noted that concessions were important for full-sized baseball and little league fields. It was agreed that Concessions could also be provided within the boathouse, which would be closer to the little league fields. The new field house near the full size field would still also provide concessions.

12. Elmwood Avenue Signal Light – Jeff noted that the Monroe County Department of Transportation has studied the signal light and has determined that it is no longer justified from a vehicular transportation perspective, and they will no longer support it. In such cases the City would need to pay an annual fee to the County to maintain and energize the signal. The group agreed that this is a needed signal as there is ample pedestrian crossing here to justify it. The City has informed the County that the annual fee will be paid to maintain the signal.

13. Joanne D. asked if the parking for the tennis courts was too far removed. Zak noted that it is slightly more distant than existing but nothing that should seem unreasonable , especially those going to play tennis, basketball or baseball. Zak compared it to equal or less than what would be experienced at a grocery store or shopping center.

14. Joanne D. asked if the tennis courts and large ballfield would be lighted. The tennis court would be lit as it is now, with the lights on a timer and adjusted seasonally. The large ballfield would also be lit with the lights only on when in use. When and if implemented, lighting should minimize spillover to

adjacent residences.

15. Sheila B. asked how the plan for the north side of Elmwood reflects the plans for the Brooks II project. The plan shows the exact road layout and alignment– one way southbound from Staybridge Hotel to turn around and two-way from turn-around to Elmwood – to be built in the Brooks II project. The only roadway element to be built by the Brooks II project not included in this plan is the parking are.

16. John P. noted that some of the recreation centers bring kids to the pool on busses and that the Wellness Center drop-off loop needs to accommodate them. Zak verified that busses will be able to access the loop.

17. John P. noted that while there are concessions and restrooms in the new Field House structure, it is too distant from the riverfront little league fields to adequately serve them. Jeff noted that there is flexible space built into the boathouse that could be used as concession space for the little league fields. The boathouse also has restrooms available on both levels that could serve the public.

18. John P. noted that there is a new Executive Director at the Genesee Waterway's Center.

19. Joanne D. asked if the Banquet Room shown on the boathouse floor plan would conflict/compete with the restaurant space included in the new Flats Student Tower. The concept with the Banquet Room is for it to be used as a headquarters space for the various regattas, runs/walks or other large events that are centered in the park and as a high end public rental space for private parties, wedding receptions, etc… Catering level kitchen facilities would be provided but it would not be a restaurant. Zak noted that the "Banquet" label may be misleading one to think it's a restaurant (it's not) and will be changed.

20. Meeting minutes will be prepared and sent to all invitees along with the handout material. The same will be posted to project website (http://www.cityofrochester.gov/gvpwmp/).

END of MINUTES - Please notify Bayer Landscape Architecture of any errors or omissions in these meeting minutes.

Zakery D. Steele, ASLA
Project Manager
Bayer Landscape Architecture, PLLC
585-582-2000
zds@bayerla.com

GENESEE VALLEY PARK WEST MASTER PLAN
Advisory Committee Meeting
April 13, 2015 - 2:00–4:00 P.M.
SW Neighborhood Service Center

Name	Address	Email
SHEILA BAZIL	53 ARVINE Hts.	sheila_bazil@yahoo.com
Caitlin Mixes	133 S Fitchugh	cmcives@landmarksociety.org
JOHN PICONE	131 Elmwood Ave	piconej@cityofrochester.gov
ZAK STEELE	BAYER LA	zds@bayerla.com
JOHN BOROK	296 MELROSE ST	johnwborek2@yahoo.com
Jeff Mroczek	City Hall, Room 300B	mroczekj@cityofrochester.gov
MARK BAYER	19 NORTH MAIN, Honeoye Falls	mbb@bayerla.com
Joanne DeMarle	206 Melrose St.	Jdemarle@frontiernet.net

Brooks Landing Phase II Public Improvements and Genesee Valley Park West Master Plan Public Meeting

May 6, 2015
Genesee Waterways Center
5:00 PM – 8:30 PM

The following comments were received on the comment pads provided at the public meeting:

Brooks Landing Phase II Public Improvements Comment Sheets:

- No public meetings to discuss project and seek opinion of the community. Project in the works for a long time - plenty of time to talk with us.
- Re: Architect plans for new center – I hate the timbered "Adirondack Lodge". This is after all not the Adirondacks. Clean lines of other drawing more appropriate for contemporary city setting. (tho perhaps neither are in keeping with the goal of going back to Olmsted's plans as you suggested was the rational for taking out the trees.)
- Relocating a large baseball field so it takes up all of the lovely open area (corner of Elmwood & GP Extension) is a shame and certainly does not maintain the historic Olmsted plans either.
- Aesthetically I prefer boathouse design alternate #2. Looks more like boathouse row, less mechanical.
- Sculling boaters have different needs than Sweep Boats (1's & 2's vs 4's & 8's) don't forget us (we are a major source of income and manpower.
- No more surprises, please. Let us know what's going to happen ahead of time!
- Lighting should be along the river so as to not encourage vandalism.
- We need full lighting throughout the park for safety reasons.
- What was the budget for this project.
- Sidewalk should remain.
- Is there going to be user friendly access for those of us that bring our own kayaks and canoes to this boat launch area without having to walk an uncomfortable distance. Please keep access really 'public' for those of us with smaller vessels too.
- Reduction of ballfields in the part of the park (from 3 to 1 lg.) closest to the neighborhood is not wise, if a larger field is needed, it could go in the park across the river on an area closer to river and away from neighborhoods. Significant safety issue.
- Is there a way to have a building that Mr. Olmsted would have liked. Country lodge vs Modern Angular, seems like there could be some other 'look'.

Genesee Valley Park West Master Plan Comment Sheets:

- Looking forward to the changes. Hope the changes will bring in more activities / sports.

- Failure to have public meeting long before tonight is a huge slap in the face for the surrounding community. It does not make it easy for us to support any plan, no matter how cool.

- The public communication for neighborhood involvement

- Sidewalks should not be taken away, plus we must think of safety issues & leave a lighted path for safety, not please with round-about cut off.

- A smaller pool will impact the Rochester Recreation Swim Team's ability to participate in competitive swimming. Need an Olympic size pool to host required invitational meets. Current pool is the only 50 meter outdoor pool in Monroe County.

- Need more community outreach.

- If this pool can be Olympic size to attract more events, then better.

- Excellent work – good to see this development.

- Very poor access for public recreational boating. I bring my own kayak and the designer is telling me I won't have access to the public docks if there is an event and I will have to carry my boat a long distance from parking, around a loop to even get to the docks. Very bad planning! Also poor communication. Why haven't I heard about this before now??

- Disc golf course in area south of canal – low impact & high usage ideal for the space.

<u>The following comments were received during the Open House portion of the meeting (5:00 – 7:00 PM)</u>

Brooks Landing Phase II Public Improvements:

- The park drive from the hotel to the park turnaround should be one-way northbound not southbound.

- The park drive from the hotel to the park turnaround should be two-way. If it cannot be two way it should be eliminated.

- Need to include a walk along the park drive so that people can walk along the promenade and then follow the park drive and stay away from the river trail. Lighting also needs to run along this path for safety reasons, from the promenade to Elmwood.

- The clearing that was done to open views from the neighborhood to the park and river looks great.

- The traffic light at Elmwood needs to remain. This is an important pedestrian crossing for neighborhood residents, children and UofR students.

- City needs to confirm that those attending Advisory Group meetings actually represent the group that they claim to be representing.

- Do not like that trees were cleared but appreciate that about twice the numbers that were removed will be replanted and that the trees to be planted will respect the Olmsted design.

Genesee Valley Park West Master Plan:

- Would like to see a disc-golf course added to the park as there is demand for this type of recreation. Areas south of the canal near 390 and along the wooded trail area would be great.

- Minimal trail additions to the wooded area south of the highway [i-390] are good. But, please do not destroy or ruin any of the remnants from the Genesee Valley Canal that exist within the woods. Keep this area as natural as possible.

- Happy with the future relocation of the fire training facility. I am concerned about chemicals they have used and whether they cleaned up the site or not.

- Access to the park and new park areas along Scottsville Road is a wonderful [Town of Chili]. It opens up many possibilities about future park plans and recreation opportunities.

- If the boathouse cannot be made any larger then we need additional boathouse sites. The site along the canal near 390 seems like a good location for another boathouse.

- Overall park design and features should focus on multi-modal transportation options, especially provisions biking. Many trails with many destinations converge at this park.

- Thank you for removing parking lot drive [to the tennis courts] off of Genesee Street [Extension]. There is really not much traffic there but the drive through the park seems more convenient for people who use the park.

- I like that we don't have to walk from one large parking lot to all other areas of the park. Please make sure to include handicapped parking in all the parking lots and make sure it is easy for people to get up the walks and over curbs. Will the curbs prevent people from driving on the grass?

- A new field house moved away from the houses on Genesee Street [Extension] is very good. Too many people drive on the lawn and it needs to have its own parking lot area like it's shown on the plan.

- I am very concerned about fly balls going across Elmwood Avenue to the houses on the north side of Elmwood. Why is the baseball field being turned around to this new direction?

- I don't understand why this plan [the Master Plan] is different than this plan [Brooks Landing Phase II].

- Please keep the small playground near the field house. It is important to the neighborhood but it needs to be repaired though.

- The boathouse does not allow for growth in rowing. I am concerned about it being too small to accommodate all the local programs and demand for the sport.

- The ball fields [little league] are important and it's good to have them in the dry area of the park. We need to be able to use the ball fields.

- I am concerned about the location of the baseball field [full-size field] and wonder if kids will be gathering near the road.

- Is the new outdoor pool regulation size? In order for the City to hold certain swim events the pool needs to be a certain size. Very concerned about it being too small.

- Pool needs to be Olympic size to continue to host events / meets

- Very appreciative of the softball fields [little league] being in a non-flooding location.

- The driveway through the park is nice, like on the other side [of the river] where you can get to all the different park places.

- What other amenities are being located in the Wellness Center – why not an event space?

- I am very excited about the fire training facility being relocated. I realize it will not be for a while but this is an important part of this plan. It doesn't belong here next to a recreation park.

- Will there be a new ice rink? The existing one is being removed? I thought this was popular and would like to see it somewhere else if it can be included in the future.

- Traffic on Elmwood Avenue is very dangerous. Please keep the light at the park entry because that is the only place to cross the road down here [near the river]. Also, the City needs to do something to slow cars down on Elmwood. The intersection up here [Elmwood and Genesee Street/Scottsville Rd] is not safe for kids. It is very difficult to cross because nobody known when or where a car will come from or where it is safe to get to the park.

- Make sure not to destroy the bird habitats in the park.

- Liked [Concept #1] for the boathouse design due to its sustainability features [green roof, solar design]. It's unique.

- Prefer alternate concept #1 for the boathouse. Alternate #2 looks too much like Adirondack style.

- Liked [Concept 2] for the boathouse. The stone arches are nice.

- I was concerned that the boathouse design was complete already, but as long as this is an early [concept] design and more input can be given later then it is good. Lots of thoughtful ideas about the use of the building. I am happy to see it will not just be for rowing teams.

- How do I get my kayak to the waterfront area [dock]? I can't carry it that far. I don't have help to carry my boat like some of the rowers do.

- I am very concerned about being able to use/get to the waterfront area [with kayak] during a wedding [at the boathouse event space]. Please make sure the waterfront remains open during special events.

- I thought a different design [schematic plan from 2014] was chosen at a previous meeting.

- Make sure to include outdoor storage areas at the boathouse.

- Access to boathouse and the drop-off was good for school parents.

- Make sure the drop-off at the boat house can accommodate necessary trailers.

- Include winter maintenance of the park pathways in the master plan. As the junction of the east-west Erie Canal path, north-south Genesee River Trail, and Lehigh Valley North trail, these paths form a core part of the multimodal transportation infrastructure of our community. It is especially important that these paths be maintained year-round to encourage multimodal connectivity between the airport and the city.

The following comments were received during the Question & Answer portion of the meeting (7:00 – 8:30 PM):

- The City needs to do a much better job involving and informing the public of projects.

- Can the clearing to open views being done in Genesee Valley Park be done along Cottage Street?
    - The Cottage Street area is outside of our project limits so it cannot be done as part of the Brooks II project. The Vaccuum Oil Brownfield Opportunity Area ongoing efforts would be a good venue to pursue such clearing.

- A sidewalk needs to be provided from the promenade along the hotel to and along the park drive to Elmwood Avenue and should have lighting.
    - The City will develop a plan and estimate to include a walk and lighting. Additional funding will need to be secured to include these improvements. City Council may be able to help secure the necessary funds.

- The riverfront should be fenced to prevent people from accidentally falling or slipping into the river.
    - There are many miles of riverfront in the City and fencing it all would be impractical. People accidentally falling into the river has not been an issue.

- PLEX has requested permanent restrooms to serve the ballfields north of Elmwood but they are not included in the plan. Port-a-potties are provided but no one likes to use them and they get vandalized.
    - Restrooms were looked into but their cost was estimated to be about $150,000 - $200,000 for a pre-fabricated structure, foundation and utilities (water, sewer and electric). Neither the State or Federal grant would have paid for a restroom. There are restrooms available to the public at the Sports Complex and Genesee Waterways Center south of Elmwood.

- Waterless or composting toilets that do not require full sewer connections may be a cheaper alternative.
    - While they may be less expensive water and electric would still be needed for sanitary purposes.

- What work is being done to open up views from the neighborhoods to the park and river?
    - All clearing work has already been completed. There may be some additional minor removals and trimming as the project advances.

- The park and trails in Genesee Valley Park are a major off-road transportation node for bicyclists with the convergence of the Genesee Riverway Trail , the Genesee Valley Greenway Trail and the Canalway Trail. The trails need to be plowed in the winter so they are usable year round.
    - The City's priority is to plow the sidewalks and roadways throughout the City for the vast majority of the population and for emergency responders.

- The City needs to work with the neighborhood groups to provide better outreach to the community. The neighborhood groups have established social media presence and contact networks that should be used for notifying and informing the community.

- Is any work being done on the ball fields north of Elmwood?
    - The ball fields will not be impacted by this project. Concepts were developed to provide improved drainage but neither the State nor Federal grant would have paid for these improvements. Funds for baseball field and tennis court improvements have been requested through the City's Capital Improvement Program but have yet to be funded.

- Public access to the river at the proposed new boathouse needs to be preserved. Concerned that any events hosted in the public space or by the boathouse would limit the publics' access to the water.
    - No change in public access to the water is planned.

- At the onset of the Brooks Landing development a commitment was made to the neighborhood that a two-way connection would be maintained through the park. The agreement that the City signed with the State only stated that they were to be consulted, it did not give them approval over what the City did on site. By a show of hands a majority of attendees favored a two-way connection.
    - In 2005 the Mayor, the National Park Service and the NYS Office of Parks, Recreation and Historic Preservation (OPRHP) signed a Memorandum of Agreement (MOA) that permitted the alienation of a portion of Genesee Valley Park to make the private development possible. This agreement included certain stipulations, including ongoing NYS review of public and private development plans. In 2011, with input from the community, Council and the administration, the public

park plan was advanced through the Environmental Assessment process with the inclusion of a 2-way connection. As required by the MOA the documents were submitted to OPRHP for review and comment. OPRHP's response was to require that the park road "allow one-way traffic from the hotel parking lot to the park, becoming a two-way at the turn around loop."

This document was prepared for the New York State Department of State, Division of Coastal Resources, with funds provided under Title 11 of the Environmental Protection Fund.

Genesee Valley Park West Master Plan

City of Rochester, Project #20042, NYSDOS #C006965

Advisory Meeting #6 - Minutes

Date: June 23, 2015, 6:00-7:30 PM
Location: Orig. SE Neighborhood Service Center, moved to "Brue Coffee" due to Center locked door, Center door signed

A. ATTENDANCE

See attached sign-in sheet

B. MEETING CONTENTS

1. **Project Update:** Jeff welcomed the attendees and provided a brief summary of past efforts and goals of the meeting.

2. Two public meeting have been conducted and this is the sixth Advisory Group meeting. Minutes of all prior meetings with presentation materials are available on the project website (http://www.cityofrochester.gov/gvpwmp/).

3. This will be the final project meeting. The grant funding the project expires at the end of June and the final plan and report need to be submitted to complete the project.

4. The plan represents a long-range vision for the improvement of the park over the next 20 to 30 years.

5. There is no funding in place to construct any portion of the project. The completed master plan will be an invaluable tool to apply for funding from City, State and Federal sources.

6. The final master plan report will recommend a phased implementation plan for the various improvements in 5 year increments (0-5 years, 5-10 years…up to 25-30 years). While the recommended phases represent a logical progression of improvements, in reality the implementation of the plan components will be driven by the availability of funding.

7. The master plan was shaped by considerable public involvement through public meetings and the Advisory Committee. When funding is secured to implement any of the master plan recommendations there will be further community input sought as part of the design process.

8. Question: *If the ball fields are moved south of Elmwood Avenue will they still be subject to seasonal flooding?*

   The proposed location of the ball fields and multi-use field is a higher and drier location. There is a ball field on the southern portion of this area now and it is not wet like the area north of Elmwood.

9. Question: *Why not retrofit the buildings that already exist? Are the buildings in such poor shape that they cannot be salvaged?*

   The design team conducted a thorough analysis of all buildings (sports complex, Waterway Center, and fieldhouse) including interviews with those who use, operate and maintain the buildings on a regular basis. A detailed description of the findings can be found in Chapter 4 – Existing Park Conditions on the project web page. In general the buildings are nearing the end of their functional life and require regular infusions of funds for critical upgrades and repairs. At some point during the 30 year timeframe of this master plan the buildings will reach a point where it no longer makes sense to invest additional funding in them.

10. Question: *Does the ice rink need to be removed from the park? The ice rink is an amenity that the neighbors can walk to, removing from park would prevent this.*

What the project team heard from the advisory committee was that the ice rink was not a significant recreational asset for the neighborhood. Public/open skating times are limited and not at desired times. If the rink was to be rebuilt it would make the most sense to provide multiple-sheets of ice in a larger complex that would not be of appropriate scale to the park.

11. Question: *Was / can a dog park be considered for inclusion?*

    As part of the programming phase of the project the design team developed a list of desired park components in conjunction with input from the Advisory Committee and participants at the first public meeting. A dog park was never identified as a desired component. However, that does not mean that it cannot be included as an amenity somewhere in the park as the master plan is implemented.

12. Question: *Is there a way to get parking closer to the southern end of the park (south of the Canal and 390) for greater access and utilization?*

    This section of the park is isolated by the adjacent industrial, office and commercial uses between it and Scottsville Road. In addition, the City boundary runs directly along the western edge of the park space. The master plan does recommend that the City coordinate with the Town of Chili and the NYS Department of Transportation to explore possible parkland expansion on lands they own outside of the City boundary. The parcels are identified on the plan.

13. Question: *Is this plan being designed for the current community of for some future community?*

    The design team did study the most recent demographics and land use and ownership. The study assumed that the demographics and built environment will not change significantly over the life of the master plan. What the study did look at were present and future trends in recreation. The findings of this research can be found in Chapter 2 – Background & Context on the project web page.

14. Question: *Can you explain in more detail the pool / aquatics / wellness center?*

    The proposed complex will include an outdoor pool sized to accommodate USA Swimming long course requirements and an indoor 4-season spray park and indoor current / therapy pool. The wellness center is modeled after the existing Ryan and Gantt Community Centers and are projected to include a gymnasium, fitness center, indoor track, computer labs, classroom / flexible use space, concessions, and community health services.

15. *Question: At last month's public meeting the City committed to looking into providing an extended walkway between the promenade and Elmwood Avenue along the park drive, with lighting. Has anything been done?*

    A plan and estimate were developed and provided to the DES Commissioner and City Engineer. Nothing can be done until funding is secured. At the end of the meeting Jeff shared the plan with those interested.

16. *Question: At last month's public meeting it was also stressed that the neighborhood was promised a two-way connection was to be maintained when S. Plymouth Avenue was severed. If it cannot be two-way it should be one-way northbound, not southbound, in order to serve the neighborhood. What is being done to make this change?*

    When the City gave up parkland to create the development parcel for the hotel and student tower, the Mayor entered into a Memorandum of Agreement (MOA) with the NYS Office of Parks, Recreation and Historic Preservation (OPRHP) and the National Park Service (NPS). This agreement required that the City consult with OPRHP & NPS throughout the City's Site Plan Review Process. Submittals to OPRHP & NPS for the public improvements (Brooks Landing II) included a two-way connection between the hotel and Elmwood Avenue.

    OPRHP's responded that in order to fully comply with the MOA that the connection be designed to "Allow one-way traffic only from the hotel parking lot into the park, becoming a two-way at the turn around loop." The City asked for further clarification on this requirements and OPRHP responded as follows:

    "Genesee Valley Park is protected under section 6(f) of the Federal Land and Water Conservation Fund (LWCF), to be used only for outdoor recreation purposes. If the park or facilities (including the road) within the park are used for activities other than outdoor recreation, this is a conversion of parkland under the Federal Act. Per the MOA between the City of Rochester and the State of New York, no additional conversions are allowed at Genesee Valley Park.

    The use of parkland by a municipality for a non-park purpose even though the use may be public in nature has been litigated and found to be an alienation of parkland and thus for LWCF-protected parks also a conversion.

The requirement to keep the road one-way in direction is to ensure that the road segment in the Park continues to function as a park road. Our preference would be to allow no access from the north end where the park meets the hotel parking lot to prevent the road from being a cut through. However, to accommodate the community's need for access to the Park, which you have indicated to us was impacted by the development at Brooks Landing, we can defend the continuation of the primary use of the road to be park access as long as the road does not have two-way flow."

Changing the traffic flow from southbound to northbound would need to be approved by OPRHP & NPS by request from the City. Jeff will discuss this with the DES Commissioner and City Engineer.

17. Meeting minutes will be prepared and sent to all invitees. The meeting minutes and all displays will be posted to project website (http://www.cityofrochester.gov/gvpwmp/). Once completed the final master plan and report will also be posted to the project website.

END of MINUTES - Please notify Bayer Landscape Architecture of any errors or omissions in these meeting minutes.

Zakery D. Steele, ASLA
Project Manager
Bayer Landscape Architecture, PLLC
585-582-2000
zds@bayerla.com

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Name of Action or Project:
Genesee Valley Park West Master Plan

Project Location (describe, and attach a location map):
City of Rochester, Genesee Valley Park area, approx. 9,000 LF of west side of Genesee River, between Brooks Avenue and Weinder Rd

Brief Description of Proposed Action:
The Genesee Valley Park West Master Plan is a long-range vision for transforming the City-managed portion of Genesee Valley Park on the western side of the Genesee River. The plan is guided by 21st century recreation shifts as well as Frederick Law Olmsted's original 1890 vision for the park as a whole – that being a place where users can experience the pastoral tranquility of the river plain with few man-made interruptions. The plan proposes phased implementation over a 30-year period and includes replacement of existing recreation buildings, recreation fields, circulation and other and park features, and an overall rehabilitation of the park's historic landscape that meets the park's original design intent.

Name of Applicant or Sponsor:	Telephone: 585-428-7124
City of Rochester, Department of Environmental Services, (J. Mroczek)	E-Mail: mroczekj@CityofRochester.Gov

Address:
30 Church Street, Room 300B

City/PO:	State:	Zip Code:
Rochester	New York	14614-1279

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: See master plan, section 7, Permitting and Approvals list (USACE, NYSDEC, NYSDOS, NYSOPRHP, others)	☐	☑

3.a. Total acreage of the site of the proposed action? ~ 86.9 acres
b. Total acreage to be physically disturbed? ~ 51 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? ~81.9 acres

4. Check all land uses that occur on, adjoining and near the proposed action.
☑ Urban ☐ Rural (non-agriculture) ☑ Industrial ☑ Commercial ☑ Residential (suburban)
☑ Forest ☐ Agriculture ☑ Aquatic ☐ Other (specify): _____
☑ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?	NO	YES
If Yes, identify: Name:Not named, Reason:Environmentally sensitive, Agency:Rochester, City of, Date:3-14-86	☐	☑
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO	YES
	☑	☐
b. Are public transportation service(s) available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	☐	☑
9. Does the proposed action meet or exceed the state energy code requirements?	NO	YES
If the proposed action will exceed requirements, describe design features and technologies:	☐	☑
10. Will the proposed action connect to an existing public/private water supply?	NO	YES
If No, describe method for providing potable water:	☐	☑
11. Will the proposed action connect to existing wastewater utilities?	NO	YES
If No, describe method for providing wastewater treatment:	☐	☑
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	☐	☑
b. Is the proposed action located in an archeological sensitive area?	☐	☑
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☑
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☐	☑
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: Genesee River, future master plan phases include dock replacements in navigable river waters		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☑ Shoreline ☑ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☑ Wetland ☑ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100 year flood plain?	☐	☑
17. Will the proposed action create storm water discharge, either from point or non-point sources?	NO	YES
If Yes, a. Will storm water discharges flow to adjacent properties? ☑ NO ☐ YES	☐	☑
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☐ NO ☑ YES		

Retrofit of park facilities proposes to include green infrastructure (GI) storm water management methods, per NYSDEC guidelines. Storm water not captured in newly created GI features will be conveyed to existing storm system.

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size:	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: "Rochester Fire Academy," site code 828015. The site is a State Superfund site and is currently classified as Code 4, meaning the site has been properly closed but it requires continued significant management.	☐	☑

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor name: Jeffery J. Mroczek, R.L.A. Date: June 29, 2015

Signature:

PRINT FORM

EAF Mapper Summary Report

Tuesday, June 02, 2015 11:35 AM

Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

Part 1 / Question 7 [Critical Environmental Area]	Yes
Part 1 / Question 7 [Critical Environmental Area - Identify]	Name:Not named, Reason:Environmentally sensitive, Agency:Rochester, City of, Date:3-14-86
Part 1 / Question 12a [National Register of Historic Places]	Yes
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	Yes
Part 1 / Question 20 [Remediation Site]	Yes

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov

Joe Martens
Commissioner

December 18, 2012

Zakery Steele
19 N. Main Street
Honeoye Falls, NY ???

Dear Mr. Steele:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to an Environmental Assessment for the Proposed Genesee Valley Park West Project, site as indicated on your enclosed map, located in the City of Rochester, Monroe County.

We have no records of rare or state listed animals or plants, or significant natural communities, on or in the immediate vicinity of your site.

The absence of data does not necessarily mean that rare or state-listed species, or significant natural communities, do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information which indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities and other significant habitats maintained in the Natural Heritage Databases. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Sincerely,

Jean Pietrusiak, Information Services
NYS Department Environmental Conservation

Enc.
cc: Reg, 8, Wildlife Mgr.

#1209

Riverfront Evaluations
to support the
Genesee Valley Park West

Master Plan

Prepared for
Bayer Landscape Architecture, PLLC
19 N. Main St.
Honeoye Falls, NY 14472

Prepared by
Moffatt & Nichol
250 W. Mill St., Ste. 307
Rochester, NY 14614

July 2013

1. SUMMARY

The entire width of the Genesee River and certain areas landward of the west bank shoreline interface at Genesee Valley Park West are considered part of the floodway. Any proposed development within the floodway must be kept free of encroachment so that the 1% annual chance flood (100-year flood) can be carried without substantial increases in the flood height. The base flood elevation (100-year) in the general vicinity of the existing Genesee Waterways Center is identified as Elevation 517.0, NAVD 88.

The Genesee River water levels and discharge volumes in the vicinity of Genesee Valley Park West are highly regulated. The Mount Morris Dam regulates much of the flow entering the lower Genesee Valley; additional regulation of inflow is provided by control structures at Rushford Lake, Conesus Lake, and other contributing water bodies. The Court Street Dam, located in downtown Rochester, largely regulates the water surface elevations in the vicinity of the Park through controlled discharge. Through regulated water intake and discharge, the Genesee River water levels have far less fluctuation than would be otherwise expected in an open river system.

As expected, and despite heavy regulation, there are seasonal variations in the river water levels as the river basin water intake and discharge are balanced. Mean historic high river levels usually occur around early April, while mean historic low river levels occur around the end of August.

Generally, the river currents in the primary months of riverfront use are relatively low and very compatible with rowing and paddling facilities. From the months of May to October, average currents are estimated in the 0.5 to 1.5 feet-per-second (fps) range. Maximum discharge values represent extraordinarily high currents, occasionally over 7.0 fps. It is envisioned that during high flow events that rowing and paddling facilities would be closed, or otherwise not be used.

Soil erosion and sedimentation issues in the lower Genesee River area include river channel migration, stream bank instability, agricultural erosion, and general sedimentation runoff as a result of development, roadside ditching, and wetland displacement. There is evidence of both sediment accretion and scour within the lower Genesee River; the degree to which sedimentation and scour occur are a function of sediment load, properties of the suspended and out-of suspension soil materials, hydraulic conditions (e.g. depth, velocity, flow patterns), geometric configuration of the facilities, armoring and vegetative cover, and numerous other influencing factors.

The Genesee River is low-lying, meandering, tree-lined, and is therefore generally well protected from the influence of wind-generated waves. The size of wind-generated wave expected for the design of any riverfront facility would be less than one-foot in height.

The Genesee River, downstream of the Erie Canal and adjacent to Genesee Valley Park West, is considered part of the Erie (Barge) Canal system, and navigability concerns must be taken into account with respect to structure placement. Due to commercial navigation, there exists the possibility of vessel-generated wake waves at the site; it is expected that a 1-foot vessel wake wave would be a suitable design parameter for near shore structures.

Through erosive forces and natural processes, the Genesee River routinely accumulates and transports a moderate quantity of trees, branches, and other vegetative debris. Similarly, it also tends to accumulate trash and other man-made debris, either through storm water run-off, wind-borne processes, or intentional dumping or placement in the river. Floating logs, branches, sticks, and trash tend to accumulate in near

shore areas; this process is amplified when manmade elements, such as docks, platforms, and similar structures obstruct natural flow patterns and the progression of drift and debris downstream.

Historically, the Genesee River experiences ice development during the coldest winter months. Due to variable temperature and precipitation conditions, the thickness of ice build-up differs from year-to-year. In addition to localized static ice development, the river also carries floe ice, which is carried downstream with the river current during spring thaw conditions. Hence, ice formation and ice floe conditions must be considered when evaluating riverfront facilities.

The introduction of docks, bank stabilization, and other manmade features can impact the hydraulic characteristics of a particular site; adverse impacts could hinder facility operations, adversely impact navigation, accrete sediment, promote scour, collect debris, and generate a variety of other potentially undesirable scenarios. Hence, it is recommended that site specific characteristics be considered when assessing alternate sites and their potential development configurations, to minimize impacts and provide a safe, functional, and maintenance-free riverfront facility.

2. HYDROLOGIC ASSESSMENT

Scope of Work: Assess the hydrologic characteristics of the site and surrounding areas, including flood zones, river water levels, and seasonal characteristics. Include a cursory level hydro-geological evaluation of the Genesee River at the site, including a basic assessment of issues involving sedimentation, scour, wind and waves, current, drift and debris, ice load generation, and similar hydraulic-related considerations. Wetlands inventory and upland area site drainage evaluation is to be performed by others.

Flood Zones

The west bank of the Genesee River, which encompasses the rower and paddler facilities at Genesee Valley Park West, is depicted in the National Flood Insurance Program (NFIP) Flood Insurance Rate Map (FIRM) 36055C, Panel 0332G. An excerpt from this map showing the subject area is provided in Appendix A, Figure 1.

As shown in Figure 1, the entire width of the Genesee River, and certain areas landward of the shoreline interface, are considered part of the floodway. The floodway is the channel area of a waterway (stream or river) plus any adjacent floodway areas that must be kept free of encroachment so that the 1% annual chance flood (100-year flood) can be carried without substantial increases in the flood height.

Furthermore, as shown in Figure 1, additional areas adjacent to the floodway are depicted as Special Flood Hazard Areas Subject to Inundation by the 1% Annual Chance Flood (100-year flood), designated Zone AE. The 1% Annual Flood is the base flood that has a 1% chance of being exceeded in any given year.

The NIFP FIRM identifies the base flood elevation (100-year) as Elevation 517.0, NAVD 88.

North (inland) of Zone AE is an additional area identified as Zone X. Zone X is described as areas of 0.2% annual chance of flood (500-year flood); areas of 1% annual chance of flood with average depths of less than 1-foot or drainage areas of less than 1 square mile; and areas protected by levees from the 1% annual chance of flood.

River Water Levels

The Genesee River water levels and discharge volumes in the vicinity of Genesee Valley Park West (the project site) are highly regulated. During potentially extreme precipitation and runoff events, the Mount Morris Dam regulates the amount of water entering the lower Genesee Valley. Additional regulation of inflow is provided by control structures at Rushford Lake, Conesus Lake, and other contributing water bodies.

The Court Street Dam, located in downtown Rochester, regulates the water surface elevations in the vicinity of the project site through controlled discharge. Court Street Dam regulates water elevations for the Erie (Barge) Canal (which crosses the river just upstream from the project site); water elevations are also regulated for the power plant(s) that operate on the river.

By way of Court Street Dam, the Erie (Barge) Canal diverts water from Lake Erie to the river from the west; the river diverts a smaller amount of water into the canal to the east.

Through regulated water intake and discharge, the Genesee River water levels have far less fluctuation than would be otherwise expected in an open river system.

Unanticipated and/or intense rainfall events can cause a significant rise in the river level; this was particularly true during Hurricane Agnes (1972) when additional releases from Mount Morris Dam were required to prevent dam overtopping.

Similarly, there are seasonal variations in the river water levels, as the river basin water intake and discharge are balanced. Periods of protracted rainfall can cause river level rise, as can runoff generated from snowpack melt that accompanies rapidly rising temperatures. Generally, the river level tends to be higher than average during the late winter and early spring seasons (months of February through May), likely due to snowmelt runoff and precipitation conditions; the river level tends to be lower during the hot, dry seasons of summer and early fall (June through September). Mean historic high river level usually occurs around early April, while mean historic low river level occurs around the end of August.

To assess the potential variability in river water levels, historic river elevations and river discharge values were obtained from two United States Geological Service (USGS) gage stations in the vicinity of the project site. These are:

- Genesee River at Ballantyne Bridge, near Mortimer, NY
- Genesee River at Ford Street Bridge, Rochester, NY

The Ballantyne Bridge gage station is located approximately 3.4 river miles upstream of the project site and records daily river elevation (stage); the period of record for the Ballantyne gage is generally from October 1973 to present.

Extreme high and low gage readings for the period of record are 20.57 feet (January 10, 1998) and 8.20 feet (November 9, 1979), respectively. Gage datum is 500 feet above National Geodetic Vertical Datum 1929 (NGVD 1929). It may be possible that ice damming caused the extreme high gage reading for the period of record; likewise, extreme regulation could also result in other extreme high and low water conditions.

The Ford Street Bridge gage station is located approximately 2.1 river miles downstream of the project site and records daily discharge (flow); the period of record for the Ford Street gage is generally from 1904 to present.

Additional information regarding the Ballantyne Bridge and Ford Street Bridge gage stations can be found in Appendices B and C, respectively.

From the historic river data retrieved from the two monitoring sites, river level information was parsed and a statistical evaluation performed, representing maximum, minimum, mean, 25^{th} to 75^{th} percentile, and 10^{th} to 90^{th} percentile exceedance values.

Plots of daily/monthly gage height values from the period of record at the Ballantyne Bridge gage are provided in Appendix B.

Plots of daily/monthly discharge values from the period of record at the Ford Street Bridge gage are provided in Appendix C.

Current

River current velocities are a function of discharge (flow volume) and the cross sectional area of the watercourse. As discharge varies, so does the river current.

River current velocities for the site were estimated by dividing the measured discharge values by an estimated flow area. River currents representing maximum, minimum, mean, 25th to 75th percentile, and 10th to 90th percentile exceedance values were developed. Plots of extrapolated daily/monthly river current values are provided in Appendix D

Generally, the river currents for the project site in the primary months of riverfront use are relatively low and very compatible with rowing and paddling facilities. From the months of May to October, average currents are estimated in the 0.5 to 1.5 feet-per-second (fps) range. Maximum discharge values represent extraordinarily high currents, occasionally over 7.0 fps. It is envisioned that during these high flow events that the facilities would be closed, or otherwise not be used.

Sedimentation and Scour

The Genesee River basin is a complex watershed with varying conditions of hydrology, soils, land use, and management practices. The basin is largely rural, with the majority of land area comprised of agricultural and forested lands.

Soil erosion and sedimentation issues in the lower Genesee River area include river channel migration, stream bank instability, agricultural erosion, and general sedimentation runoff as a result of development, roadside ditching, and wetland displacement.

The degree to which sedimentation and scour might occur at the project site are a function of a combination of sediment load in the river, properties of the suspended and out-of suspension soil materials, hydraulic conditions (e.g. depth, velocity, flow patterns) , geometric configuration of the facilities, armoring and vegetative cover, and numerous other influencing factors.

The Genesee River is a meandering water body, consisting of straight courses, and gentle to sharp bends. The existing Genesee Waterways Center site (see Appendix A, Figure 1) is located near the end of a gently sweeping bend to the right, just before a much sharper bent to the left. Since water velocities tend to be higher at the outside of a bend, the site is in a transitional area where stream velocities might be expected to be slowing somewhat. In addition, it is generally expected that vegetated near shore and near bottom water velocities tend to be lower; these natural occurrences also tends to release sediment particles from suspension. Similarly, man-made facilities (docks, platforms, ramps, pilings) tend to break or redirect flow, causing localized areas of minor scour and deposition.

Hence, it is expected that the existing Genesee Waterways Center site would generally tend to accrete sediment; periodic conditions of high flow (as may occur during a spring runoff) may temporarily reverse this process.

Other potential development locations, both within and beyond the confines of Genesee Valley Park West, would need to be evaluated on a case-by-case basis with respect to sedimentation, scour, and other site considerations.

For example, it is understood that consideration may be given to locating the Genesee Waterways Center to a new west bank area downstream from the current location, near the existing ball fields. This location is considered at the inside of a bend straightening, which is generally preferred for sedimentation and scour issues. However, in this location the river is necked down (narrower), meaning that current velocities may be somewhat higher. Furthermore, the narrower width the river, coupled with docks projecting into the river, may have a potentially adverse impact on commercial navigation.

Other potential locations being considered for the Genesee Waterways Center are immediately upstream or downstream of the Elmwood Avenue Bridge. These locations are on a full inside bend, resulting in heightened concern for sedimentation and debris accumulation. Site observations reveal logs and sediment building up around the west bridge pier.

While there are many contributing factors to sedimentation and scour, the outside radii of river bends tend to provide faster flowing water; this tends to keep sediments in suspension and provide a somewhat lower level of sediment accretion. Conversely, the inside radii of river bends tend to provide slower water velocities, resulting in a somewhat greater level of sediment accretion.

The introduction of docks, bank stabilization, and other manmade features can significantly impact the hydraulic characteristics of a particular site. This is particularly evident at the existing Genesee Waterways Center site, where the dock placement and general waterfront facilities configuration may be causing sediment to accrete to a degree greater than what might be expected otherwise. Hence, it is best to avoid generalizations regarding site suitability from a hydraulics standpoint; it is advised to consider site specific characteristics, and proposed modifications or adaptations when assessing alternate sites and their configurations.

Wind and Waves

The Genesee River is low-lying, meandering, tree-lined, and is therefore generally well protected from the influence of wind-generated waves. The size of wind-generated wave expected for the design of any riverfront facility would be less than one-foot in height.

Since the Genesee River is navigable, there exists the possibility of vessel-generated waves at the site. The potential for vessel-generated waves is mitigated to some degree by speed limits imposed on the canal; the Genesee River (Erie, Barge Canal) is posted as having a 10 MPH speed limit. In practice, most of the larger vessels that routinely travel this portion of the river (Mary Jemison, Sam Patch) travel somewhat slower than the posted limit, while smaller recreation craft tend to travel somewhat above the limit. Overall, it is expected that a 1-foot vessel wake wave would be a suitable design parameter for near shore structures.

Drift and Debris

Much of the Genesee River is tree-lined and, through erosive forces and natural processes, routinely accumulates and transports a moderate quantity of trees, branches, and other vegetative debris. Similarly, it also tends to accumulate trash and other man-made debris, either through storm water run-off, wind-borne processes, or intentional dumping or placement in the river.

The hydraulic process of the river described for sedimentation and scour also holds true for drift and debris material. Floating logs, branches, sticks, and trash tend to accumulate in near shore areas; this process is amplified when manmade elements, such as docks, platforms, and similar structures obstruct natural flow patterns and the progression of drift and debris downstream.

Drift and debris can cause several issues for riverfront structures. Large logs traveling at stream velocity can cause impact damage to lightly framed structures. Excessive collection of drift and debris on the upstream side can obstruct the waterway, and can transmit increase current load on the structure. Collecting debris can wrap around the front of the structure, and cause difficulty for the boaters, rowers,

and paddlers using the facilities. Excessive accumulation of trash and debris is unsightly, requires periodic clean-up, and is generally a nuisance.

Hence, sites that typically experience accumulation of drift and debris can be provided with guard piles, debris booms, and similar barriers to help prevent potential damage and the accumulation of unwanted materials.

Water Quality

A number of studies have been performed to assess water quality in the Genesee River.

The potential adverse impacts of recreational boating and paddler facilities on water quality can be mitigated through Best Management Practices. These can include:

- Provision of appropriate sediment and erosion control devices (e.g. sediment traps, silt fence, turbidity curtains) to minimize short-term construction phase impacts on water quality
- Prohibiting water discharge of sanitary holding tanks by recreational boats that may berth at the site; if recreational boats will be routinely accommodated, then a sanitary pump-out system might be considered.
- Proper control of fuels and oils used for motorized boats, including control of re-fueling locations, motor maintenance locations, and the availability of absorbent pads and other appropriate materials for spill control.
- Proper control of gray water that might be generated from washing of docks, boats, shells, and other related items.

Ice

Historically, the Genesee River experiences ice development during the coldest winter months. Due to variable temperature and precipitation conditions, the thickness of ice build-up differs from year-to-year. In addition to localized static ice development, the river also carries floe ice, which is carried downstream with the river current during spring thaw conditions. Hence, ice formation and ice floe conditions must be considered when evaluating riverfront facilities.

Freshwater lakes and large, slow moving rivers typically freeze in two stages. The first stage involves surface cooling, whereby the surface waters cool, contract, and sink toward the bottom, thereby lifting the warmer water toward the surface. This process repeats until the entire water body has reached a temperature of approximately 39 degrees Fahrenheit (F). At 39 degrees F, the water is isothermal, and has achieved its greatest density; when this occurs, the water body is said to have “turned over.”

The second stage of the freezing process begins when the surface water cools below 39 degrees F. Because it is now less dense than the water below, the cooler water remains on the surface. It continues to become cooler, until such time it reaches 32 degrees F, when ice crystals form, with a subsequent formation of an ice sheet.

Ice formation gradually thickens with decreasing temperatures during the winter. Ice forms downward into the water, and also thickens upward in the form of snow ice. Snow ice is granular and much weaker than solid “black” ice. Snow ice is created by a number of water sources accumulating on the ice surface (e.g. melting snow, runoff).

Often, initial ice formation is broken by rising and lowering water surface elevation and similar activity before finally freezing to a solid sheet. Similarly, and is often the case for the Genesee River, ice is often formed from a series of broken and assembled ice floes and rubble pieces that are refrozen into a solid mass.

The thickness of ice formation depends to a large degree on the severity of winter cold temperatures. A long, dry, cold winter will cause greater ice formation than a short, mild, snowy winter. In this regard, a thick blanket of snow serves to insulate a water body from air temperature extremes and retards the growth of ice.

Ice formation near shorelines and fixed structures can be irregular. This occurs when the ice near a shoreline or structure cracks with varying water level, with water rising through the cracks and subsequently freezing on top. Ice near shorelines and structures can be 30% to 50% thicker than typical ice formation due to this occurrence.

Ice design criteria generally include consideration of horizontal forces and vertical forces. Specific areas of evaluation include ice thickness, character, and strength of ice, thermal expansion, confinement, forces imparted on structures due to floe, water level variation, uplift and down drag due to adhesion to structures, abrasion, spray accumulation of ice, and global movement of floating structures. Additional considerations include ice mitigation and control techniques, should they prove to be warranted by evaluation.

Numerous tests have been conducted to determine strength of various types of ice. As might be expected, there is significant variation in strength results. Factors affecting ice strength include but are not limited to ice temperature, loading rate, ice type, ice structure, direction of loading, confinement, sample size, contaminants or impurities, and testing techniques.

The largest force that ice can exert on a structure is the failure strength of the ice in bearing or crushing. Dynamic interaction of ice and structures occurs when a moving ice sheet contacts a tall, flexible structure, such as a pile. In this case, load generation is dictated by a complex set of occurrences and properties, including loading rate, velocity, and elastic or plastic response of the structure.

Horizontal ice pressure against structures is caused by two general phenomena. The first is horizontal thrust caused by the thermal expansion of ice. Rising temperatures cause an ice sheet to expand. For example, a 30 degree F air temperature rise would cause an ice sheet that is one mile long to expand approximately four feet. When ice is restricted from expanding by confinement, significant forces can be developed.

Individual piles typically experience horizontal forces ranging from 1 to 5 kips (one kip equals 1000 pounds) from thermal expansion. Cribs and other gravity-type structures, when exposed to thermal ice forces often experience lateral loads that vary between 5 and 20 kips per linear foot. For both individual piles and gravity structures, the individual structural components need to be checked for allowable bending, shear, and global stability including overturning and sliding.

Compressive thermal forces on floating pontoons left in place during the winter require special consideration. Generally, floating docks may remain in place provided that the following conditions are met:

- Pontoons are fully filled with foam

- Foam encasement has a minimum wall thickness of not less than ¼ inch
- Docks are free to move laterally and longitudinally
- Docks are not restrained by connection to shore

When these criteria cannot be achieved with a high level of confidence, it is typically prudent to remove the dock systems as part of the winterization procedures.

The second consideration for horizontal ice forces relates to moving ice, or floe. The horizontal force of ice moving against a vertical pile or support structure can be approximated by the formula:

Where P = Horizontal Ice Force

σ = Strength of the Ice

h = Ice Thickness

b = Diameter or Width of the Structure

Strength of ice is assessed based on ice condition. The following general guidelines apply:

σ = 100 psi where ice break-up occurs at melting temperatures, and where ices floes as small cakes, substantially disintegrated in its structure.

σ = 200 psi where ice break-up occurs at melting temperatures, but when ice moves in large pieces and is internally sound

σ = 300 psi where at ice break-up there is an initial movement of ice sheets as a whole, or where large sheets of sound ice may strike the piers

σ = 400 psi where break-up or major ice movement occurs with ice temperature significantly below the melting point

It is possible to reduce the amount of apparent ice load on a structure by providing an inclined surface against which the ice will ride. Providing a structure with an inclination equal to or greater than 23 degrees will cause the ice to fail in bending; this has the effect of reducing the apparent load on the structure by a factor of approximately two (2).

In addition to horizontal ice forces, vertical ice forces on structures require consideration. When ice forms, it often attaches to structure surfaces. Any change in the position of the ice plate relative to the structure creates forces transferred through the contact region. This is of particular concern when water level fluctuations occur, since rising water can create uplift forces, and falling water can create increased axial loads.

The occurrence of uplift is particularly troublesome for vertical piles that support fixed or floating dock systems. Cyclic variation in water level with raising, lowering, and re-freezing of the ice in contact with the pile tends to "jack" piles that possess insufficient uplift resistance. In severe cases, piles have been observed as completely pulled from the surrounding soils. Ice uplift forces depend on strength, thickness, and character of the ice, the amount of uplift, and the surface characteristics of the piling. A typical magnitude of ice uplift force on a single pile ranges from 10 to 80 kips (where 1 kip equals 1000 pounds of force).

Similarly, ice that is raised by jacking is then suspended by way of adhesion to the piling. Suspended ice live load surcharge is dependent on thickness, but can approach 150 pounds per square foot.

Another concern for ice related to rising and falling water levels involves abrasion of structures at the ice line. This includes damage of wood fibers for timber piling and timber supports, and the wearing away of coatings on steel structures.

Physical barriers and control systems can be used to minimize the effects of ice development. Individual piles and pile clusters can help break up ice floe and redirect moving ice away from a structure. Similarly, ice booms and shields can be used to deflect moving ice.

Ice booms can also be provided that encircle floating docks, thereby providing for a stable ice sheet that fully surrounds and protects the dock system. This type of boom can also provide a plane of weakness in the ice, thereby reducing lateral and vertical forces imposed on the structure.

Proprietary systems are available that serve as pile wraps to reduce the effect of ice uplift and down drag. These wraps afford slip surfaces that reduce the adhesion and bond of the ice to the structure. However, these systems do not perform with 100% reliability, and should not be considered as permanent solutions to mitigate ice loads on pile supported structures.

Pile supported structures can be designed with installed capacities that exceed ice uplift forces.

Alternately, sleeved piles can be provided where an external telescoping sleeve is placed over a smaller internal pile or drilled and socketed shaft; both the external sleeve and the dock ride up with the ice.

Other systems are available to mitigate the effect of ice on docks, including retractable dock systems. Finally, when conditions warrant, dock systems can be removed entirely.

3. SITE INVENTORY

Scope of Work: Perform an inventory and analysis of the riverfront and riverfront structures and features in sufficient detail as needed to accurately describe the existing conditions within and adjacent to the project limits, including a review of riverfront accessibility for all users. From the inventory and analysis, M&N will identify both problems and opportunities and incorporate them in the recommendations for the riverfront work. Work is limited to the riverfront and water-dependent facilities, including docks, brows, platforms, ramps, and shoreline.

Several docks comprise the riverfront facilities at Genesee Waterways Center at Genesee Valley Park West. These facilities are intended to fulfill the needs of rowers and paddlers, although it is understood that occasionally motorized recreational craft will use the docks while the operators are attending functions in the park.

Facility descriptions are generally provided in an upstream to downstream (south to north) manner. Descriptions are general in nature, and are not intended to supplement or replace detailed physical inspections that would characterize deficiencies and/or suitability for their intended use.

An overall (aerial) view of the riverfront portion of Genesee Valley Park West is provided in Appendix A, Figure 2.

The walk-through site visit occurred on February 7, 2013. At this time, only a portion of docks were found to be in place; as is customary practice, a portion of the dock systems had been removed and stored in an upland location as a means of winterization. However, in addition to the anecdotal information obtained during the site visit, aerial photographic images and other site visits have provided sufficient information to inventory and describe the existing facilities.

Riverfront Shoreline

The riverfront shoreline in the vicinity of the site, upstream and downstream of the dock areas, was generally found to be heavily vegetated with low scrub-type brush, with near shore moderate to large mostly native tree species, including Cottonwood and Sycamore. A cursory review of shoreline conditions showed neither discernible areas of installed bank stabilization (rip rap) nor any significant areas of undercut or scour. In this regard, it appears that the natural riverbank both upstream and downstream of the docks is generally stable in its present form.

Much of the area along the shoreline immediately landward of the dock systems show evidence of sediment accretion, vegetative debris and trash collection, and the establishment of Typha (cattail, bulrush) plant material. The establishment of shallow, slow moving water, near shore plant material is indicative that the natural river flow patterns have been disrupted in the vicinity of the docks; the resulting sediment accretion may result in long-term maintenance issues associated with providing sufficient water depth to maintain the dock system in a floating condition.

Unless displaced by natural processes (scour due to abnormally high river velocities) sediment may continue to accrete until the floating docks ground out. To restore the docks to a floating condition, maintenance dredging (underwater excavation and disposal of sediment material) would need to occur. Dredging can be costly, and also requires review and concurrence from involved regulatory agencies (e.g. Corps of Engineers, NYSDEC, NYSDOS, NYSOPRHP, others).

Paddler Docks

The southernmost (upstream) docks are intended for use as courtesy launch/embark/disembark facilities for paddlers. The existing dock system is approximately 195 feet in length, 8 feet in width, has low freeboard (approximately 6 to 8 inches) and consists of proprietary modular interlocking high density polyethylene (HDPE) floatation units. See Appendix A, Figure 3. It appears that the docks are anchored in place with incrementally located small steel pipe driven into the river bottom; these pipes are located on the landward side of the docks.

The downstream end of the existing docks is provided with a transitional landward extension of the HDPE units; this approximate 6-foot wide by 20-foot long HDPE modular unit area transitions from a 20-foot long, 16 foot wide floating timber dock/platform to the alongshore oriented dock. The floating timber platform is accessed by way of an approximate 15-foot wide, 20-foot long aluminum framed, timber decked gangway. See Appendix A, Figure 4.

The existing HDPE modular interlocking dock manufacturer is VersaDock:

http://www.versadock.com/index.htm

Other similar manufactured products intended specifically for low-freeboard rower and paddler facilities are available; two of these manufacturers are Accudock and Connect-A-Dock:

http://www.accudock.com/

http://www.connectadock.com/index.htm

Interlocking HPDE flotation units are frequently used for paddler and rowing facilities, since they provide the low freeboard desired, are relatively inexpensive, and can be easily disassembled and reassembled for removal and reinstallation. Their modular nature also allows for the replacement of individual elements, should damage occur.

However, HDPE flotation units and dock systems have several disadvantages. Due to their flexible, interlocking connections and light weight they tend to move underfoot more than other types of dock systems. This movement can give the perception of instability, and cause unease on the part of the user. HDPE is also subject to impact damage, and is less durable than other types of docks. HDPE requires UV stabilizers, and can break down in sunlight over a long period of time. Finally, since the units are modular, there can be slight variations in the finish of the walking surface, and there is some risk of tripping hazard.

Rowing Docks

The middle set of docks is intended primarily for use as launch/embark/disembark facilities for rowers. The existing dock system is approximately 240 feet in length, 8 feet in width, has moderate freeboard (approximately 14 to 18 inches) and consists of proprietary aluminum framing and aluminum decking; the flotation system is assumed to be polyethylene encapsulated expanded polystyrene foam. See Appendix A, Figures 5 and 6. The primary dock system is provided with three landward-projecting integral platforms, one at each end and one centrally located. The upstream and middle platforms receive brow and gangway systems; the upstream (southerly) platform is approximately 58 feet long by 8 feet wide and accommodates an accessible gangway, complete with intermediate landing. The middle platform is approximately 30 feet long by 8 feet wide, and accommodates the primary launch and load gangway for

the racing shells. The downstream platform is approximately 12 feet long by 8 feet wide, and is currently unoccupied.

The rowing docks are anchored in place with the use of a triangulated "strong-arm" system that cantilevers from the dock to a system of concrete foundations installed within the riverbank. Strong-arm systems are designed to articulate to allow upward and downward motion of the docks to accommodate fluctuations in water surface elevations, while maintaining relative position of the docks. See Appendix A, Figure 7. In addition, a series of steel pipe piles with roller guides is provided at the upstream platform area; see Appendix A, Figure 8.

The dock manufacturer of the existing aluminum rowing dock is T.A. Dock Systems, Inc. A website for the existing dock manufacturer was not identified; it is not known if the manufacturer went out of business, or was acquired by another manufacturer.

The accessible gangway is approximately 65-feet long, is articulated, and is provided with an intermediate landing approximately 5-feet long. The accessible gangway is oriented approximately parallel with the shoreline. See Appendix A, Figure 9. A fixed, caisson-supported steel framed platform with a timber deck provides landward access to the gangway.

The primary race shell / rower gangway is approximately 22 feet long, 16 feet wide. It is configured as a timber-decked gangway, with raised timber ribs. It was noted that the toe of the gangway is uneven, and a portion projects above the platform on which it lands. Similarly, it was noted that a hinge plate at the toe of the gangway was absent, which represents a potential tripping hazard. See Appendix A, Figure 10.

It is understood that during certain periods, supplemental docks are placed on the river side of the aluminum framed floating dock system. These supplemental docks include both HDPE segments and timber framed floating platform systems. These are provided to afford easier access for the rowers, due to the excessive freeboard that the aluminum system provides. Excessive freeboard is the single largest detriment that is attributed to the aluminum dock system; 6 to 8 inches of freeboard would be desirable, whereas the system currently affords 2 to 3 times that much. The excessive freeboard leads to difficulty in launching and retrieving the shells, rower access, and rower disembarkation.

The northernmost docks, those located furthest downstream, are reportedly privately-owned and maintained. The primary docks are approximately 82 feet in length, 6 feet in width, with supplemental and adjacent platforms and dock systems. The primary docks appear to be interlocking HDPE units (Connect-A-Dock, or similar) while the platform and adjacent docks appear to be aluminum framed, aluminum decked, conventional floating dock systems; see Appendix A, Figures 11 and 12. The dock is accessed with an aluminum framed gangway. The dock restraint system appears to be moderate diameter steel pipe driven into the riverbed; when observed, the piling was inclined from the vertical, and one was chained to provide additional support.

4. OBSERVATIONS AND RECOMMENDATIONS

From the site inventory, anecdotal discussions with the operators and users of the facilities, and general principles regarding the planning and design of recreational facilities for use by rowers, paddlers, and the general boating public, the following observations and recommendations are provided:

- During times of peak demand, insufficient dockage exists to accommodate the needs of the users. Consider providing additional dockage to fulfill that demand. Additional dockage will also provide additional area for pedestrian, public, and rower/paddler assembly and congregation at the docks during special events.
- The primary aluminum framed docks intended for the rowers provides freeboard that exceeds recommended parameters for rowing and paddling facilities. Consider retrofitting these docks with flotation that provides the desired freeboard, or replace with new docks of an appropriate configuration.
- Monitor and evaluate water depths at the dock areas with respect to the ability to maintain dock flotation. Should sediment accretion become problematic, consider undertaking a maintenance dredging program. Alternately, consider the possibility of removing all docks, in their entirety, during the off-season. Doing so may be sufficient to restore natural flow patterns, which may be reasonably effective in "flushing" accreted sediment from the site.
- When replacing existing dock systems, consider dock types other than modular HDPE (such as low freeboard concrete, or aluminum framed systems) that are more stable and durable than the HDPE variety.
- Consider providing a dedicated launch and retrieval ramp; this would be used for the launch and retrieval of the small motorized aluminum chase boats, which are currently not trailered and launched and retrieved from the floating docks. A dedicated launch and retrieval ramp could also be used to seasonally remove and reinstall floating dock segments.
- Consider providing small, lightly framed dolly-type wheeled trailers for the launching and retrieval of the motorized aluminum boats.
- Consider the provision of a dedicated beach-type launch area for paddlers. Although canoes often fare well with low freeboard docks, kayaks often work best with a shallow grade beach-type launch and retrieval area.
- Consider the provision of a more convenient arrangement for car-top launch and retrieval.
- It is important, for safety purposes, to segregate to the greatest extent practicable motorized craft from non-motorized boats. If it is envisioned that the facility will continue to support motorized craft, consider providing a separate dock facility tailored specifically to the needs of the motorized boats, and located some distance away from the rower/paddler facility.
- In anticipation of potential upgrades, provide maintenance and general safety improvements to the existing facilities. These might include the elimination of tripping hazards, provision of life ring and/or rescue rope stanchions, the provision of signage with emergency call numbers, the provision of near-dock emergency call boxes, the provision of dock-specific

area lighting, and the provision of caps on the pin piles to lessen the likelihood of impale injury.

- Consider the provision of more robust foundation anchorages for the HDPE (upstream VersaDock and downstream Connect-A-Dock) dock systems. The pin pile and pipe pile installations were viewed having inclination from vertical, which is indicative of both movement and insufficient capacity. More secure foundation anchorages will ensure retention of the dock system in place during conditions of high current velocity.
- To better protect dock facilities from large floating debris, including logs and ice floe, consider providing guard structures, such as vertical piling, at discrete location upstream of the docks.
- To reduce the amount of vegetative matter and debris that collects around and behind the docks, consider providing a floating debris barrier (boom); this device can be integrated with the pile guard structures.
- Consider implementing Best Management Practices to ensure minimal adverse impact to water quality.

5. DESIGN REFERENCES AND STANDARDS

The following design references and standards apply:

- United States Access Board – Accessible Boating Facilities
- California Department of Boating and Waterways – Guidelines for Marina Berthing Facilities
- US DOD - Unified Facilities Criteria (UFC) 4-152-07; Design: Small Craft Berthing Facilities
- National Park Service – Logical Lasting Launches – Design Guidance for Canoe and Kayak Launches

APPENDIX A

FIGURES

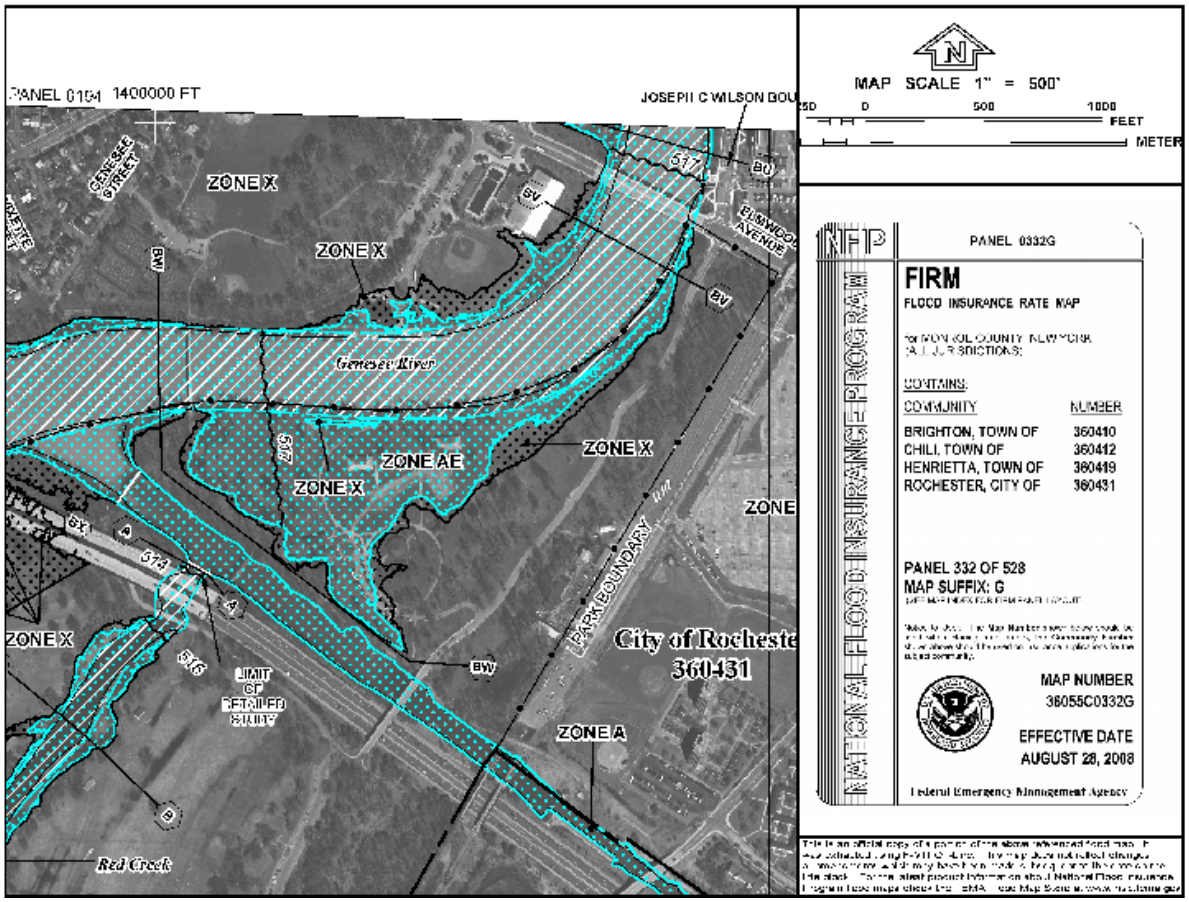


Figure 1 West Bank of Genesee River

Figure 2 Genesee Valley Park West Riverfront Aerial

Figure 3 Upstream docs for paddlers

Figure 4 Downstream docks

Figure 5 Midstream Docks

Figure 6 Midstream Docks

Figure 7 “Strong-Arm” System

Figure 8 Steel Pipe Piles with Roller Guides

Figure 9 Accessible Gangway

Figure 10 Rower Ganagway

Figure 11 Privately Owned Dock

Figure 12 Privately Owned Dock

APPENDIX B

BALLANTYNE BRIDGE

04230650 GENESEE RIVER AT BALLANTYNE BRIDGE, NEAR MORTIMER, NY

Southwestern Lake Ontario Basin
Lower Genesee Subbasin

LOCATION.--Lat 43°05′32″, long 77°40′50″ referenced to North American Datum of 1927, Monroe County, NY, Hydrologic Unit 04130003, on right bank 400 ft upstream from Ballantyne Bridge on State Highway 252, 1.6 mi west of Mortimer, and 2.8 mi upstream from Erie (Barge) Canal.

DRAINAGE AREA.--2,210 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1973 to current year.

REVISED RECORDS.--WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above NGVD of 1929.

REMARKS.--River regulated for operation of Erie (Barge) Canal, downstream powerplants, and at high stages by Mount Morris Lake (see station 04224000). U.S. Army Corps of Engineers, Buffalo District, satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 20.57 ft, Jan. 10, 1998; minimum gage height recorded, 8.20 ft, Nov. 9, 1979, but may have been lower as a result of extreme regulation.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 16.63 ft, Mar. 13; minimum gage height, 11.29 ft, Nov. 15.

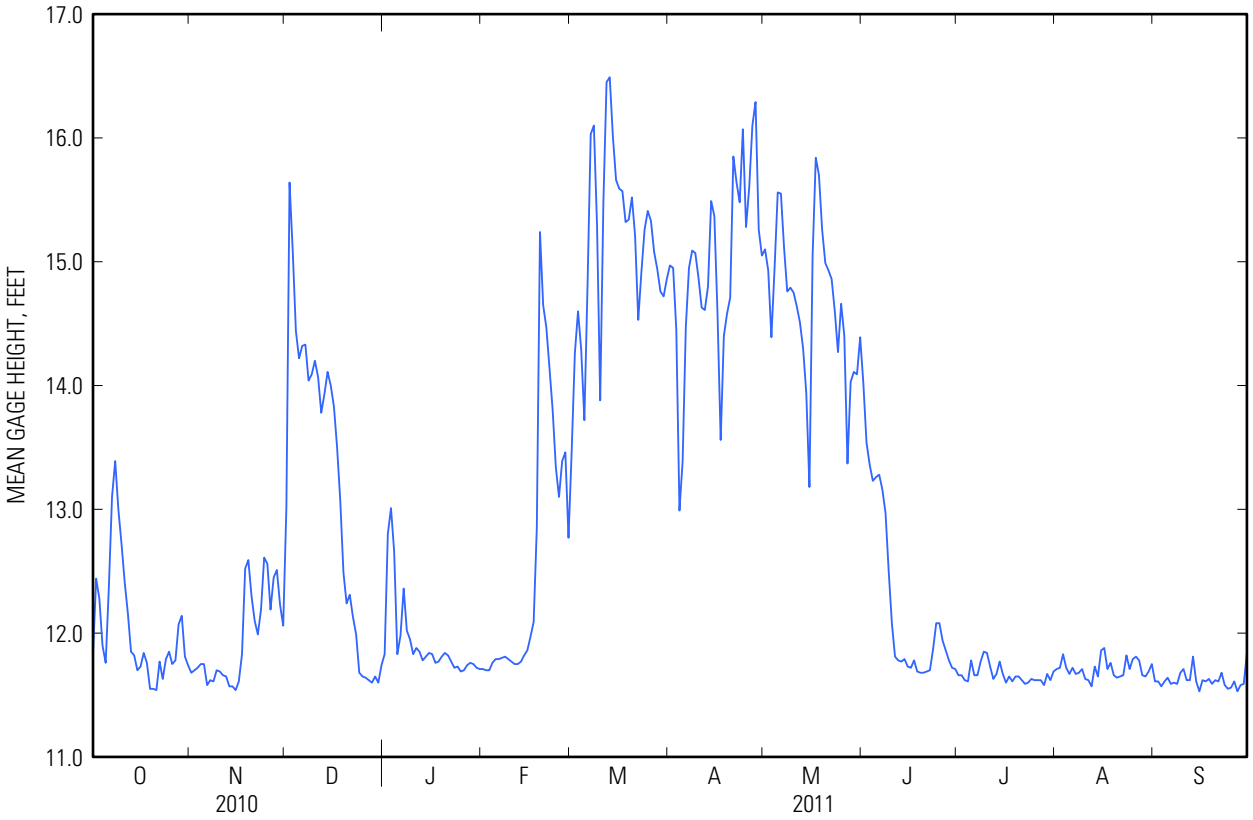
Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 04230650, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/04230650.2011.pdf

04230650 GENESEE RIVER AT BALLANTYNE BRIDGE, NEAR MORTIMER, NY—Continued

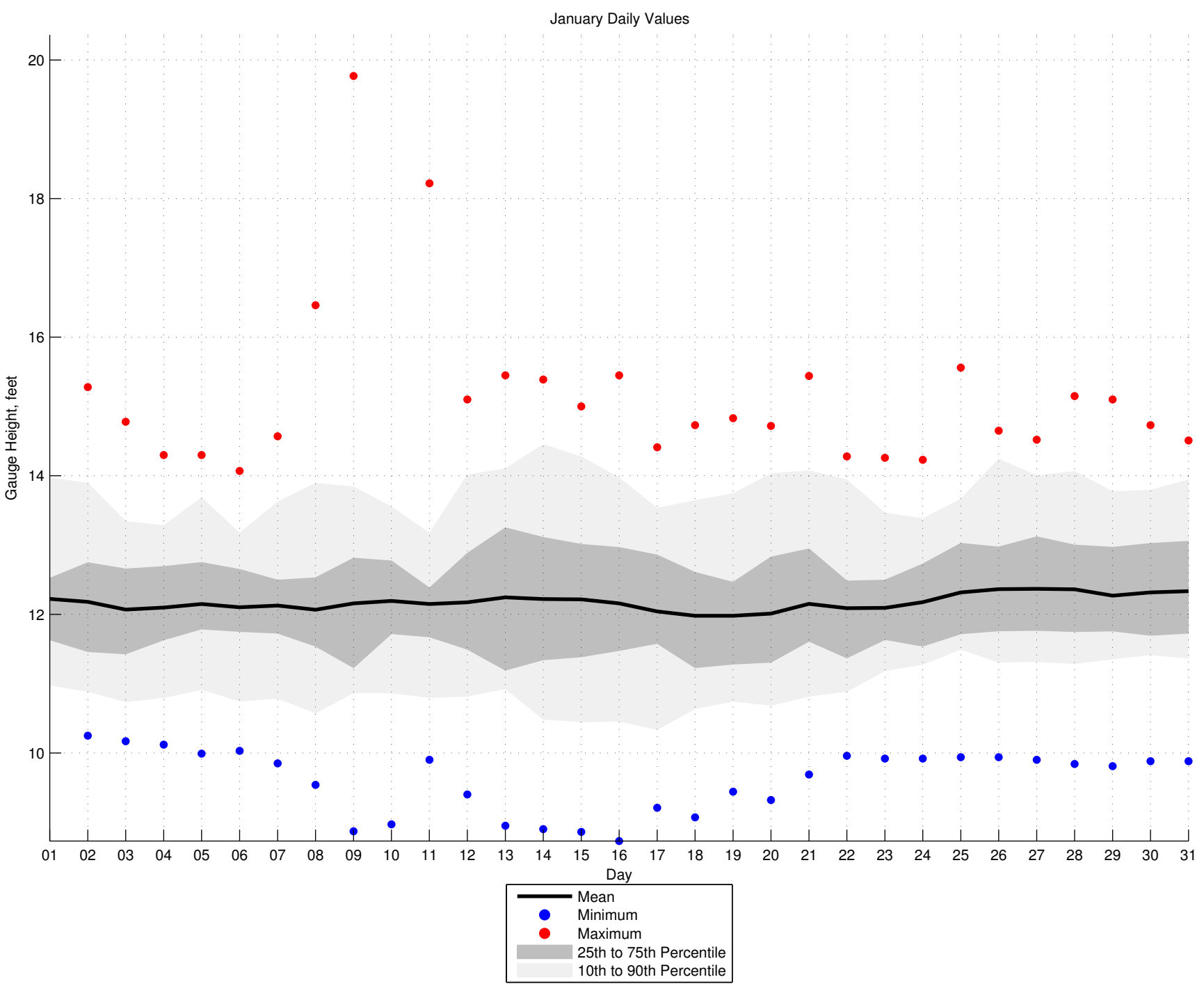
GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	11.83	11.68	13.01	11.83	11.71	13.47	14.97	15.10	14.02	11.66	11.71	11.61
2	12.44	11.70	15.64	12.80	11.70	14.26	14.95	14.93	13.54	11.66	11.72	11.61
3	12.28	11.72	15.09	13.01	11.70	14.60	14.45	14.39	13.36	11.62	11.83	11.57
4	11.90	11.75	14.44	12.66	11.76	14.29	12.99	14.95	13.23	11.61	11.72	11.61
5	11.76	11.75	14.22	11.83	11.79	13.72	13.39	15.56	13.26	11.78	11.67	11.64
6	12.37	11.58	14.32	11.98	11.79	14.81	14.47	15.55	13.28	11.66	11.72	11.59
7	13.10	11.62	14.33	12.36	11.80	16.03	14.95	15.11	13.16	11.66	11.67	11.60
8	13.39	11.61	14.04	12.02	11.81	16.10	15.09	14.76	12.97	11.77	11.68	11.59
9	13.00	11.70	14.09	11.95	11.79	15.29	15.07	14.79	12.50	11.85	11.71	11.68
10	12.72	11.69	14.20	11.83	11.77	13.88	14.87	14.75	12.08	11.84	11.63	11.71
11	12.41	11.66	14.07	11.88	11.75	15.48	14.63	14.64	11.81	11.73	11.62	11.62
12	12.16	11.65	13.78	11.85	11.75	16.45	14.61	14.51	11.78	11.63	11.57	11.62
13	11.85	11.57	13.93	11.78	11.77	16.49	14.80	14.30	11.77	11.67	11.73	11.81
14	11.82	11.57	14.11	11.81	11.82	16.01	15.49	13.94	11.79	11.77	11.65	11.61
15	11.70	11.54	14.00	11.84	11.86	15.66	15.37	13.18	11.73	11.67	11.86	11.53
16	11.73	11.61	13.83	11.83	11.97	15.59	14.58	15.05	11.72	11.60	11.88	11.62
17	11.84	11.83	13.50	11.76	12.09	15.57	13.56	15.84	11.78	11.65	11.71	11.61
18	11.76	12.52	13.07	11.77	12.85	15.32	14.40	15.70	11.69	11.61	11.76	11.63
19	11.55	12.59	12.49	11.81	15.24	15.34	14.58	15.26	11.68	11.65	11.66	11.59
20	11.55	12.30	12.24	11.84	14.65	15.52	14.71	14.99	11.68	11.65	11.64	11.62
21	11.54	12.10	12.31	11.82	14.47	15.21	15.85	14.93	11.69	11.62	11.65	11.61
22	11.77	11.99	12.13	11.77	14.14	14.53	15.64	14.86	11.70	11.59	11.66	11.68
23	11.63	12.19	11.99	11.72	13.80	14.92	15.48	14.60	11.87	11.60	11.82	11.58
24	11.79	12.61	11.68	11.73	13.34	15.26	16.07	14.27	12.08	11.63	11.71	11.55
25	11.85	12.56	11.65	11.69	13.10	15.41	15.28	14.66	12.08	11.62	11.79	11.56
26	11.75	12.19	11.64	11.70	13.39	15.33	15.60	14.40	11.94	11.62	11.81	11.61
27	11.78	12.45	11.62	11.74	13.46	15.08	16.10	13.37	11.86	11.62	11.78	11.53
28	12.07	12.51	11.60	11.76	12.77	14.94	16.29	14.03	11.78	11.58	11.66	11.58
29	12.14	12.23	11.65	11.75	---	14.76	15.26	14.11	11.72	11.67	11.65	11.59
30	11.81	12.06	11.60	11.72	---	14.72	15.05	14.09	11.71	11.62	11.69	11.84
31	11.74	---	11.74	11.71	---	14.86	---	14.39	---	11.69	11.75	---
Mean	12.03	11.95	13.16	11.92	12.57	15.13	14.95	14.68	12.24	11.66	11.71	11.62
Max	13.39	12.61	15.64	13.01	15.24	16.49	16.29	15.84	14.02	11.85	11.88	11.84
Min	11.54	11.54	11.60	11.69	11.70	13.47	12.99	13.18	11.68	11.58	11.57	11.53

04230650 GENESEE RIVER AT BALLANTYNE BRIDGE, NEAR MORTIMER, NY—Continued



Plots of daily/monthly gage height values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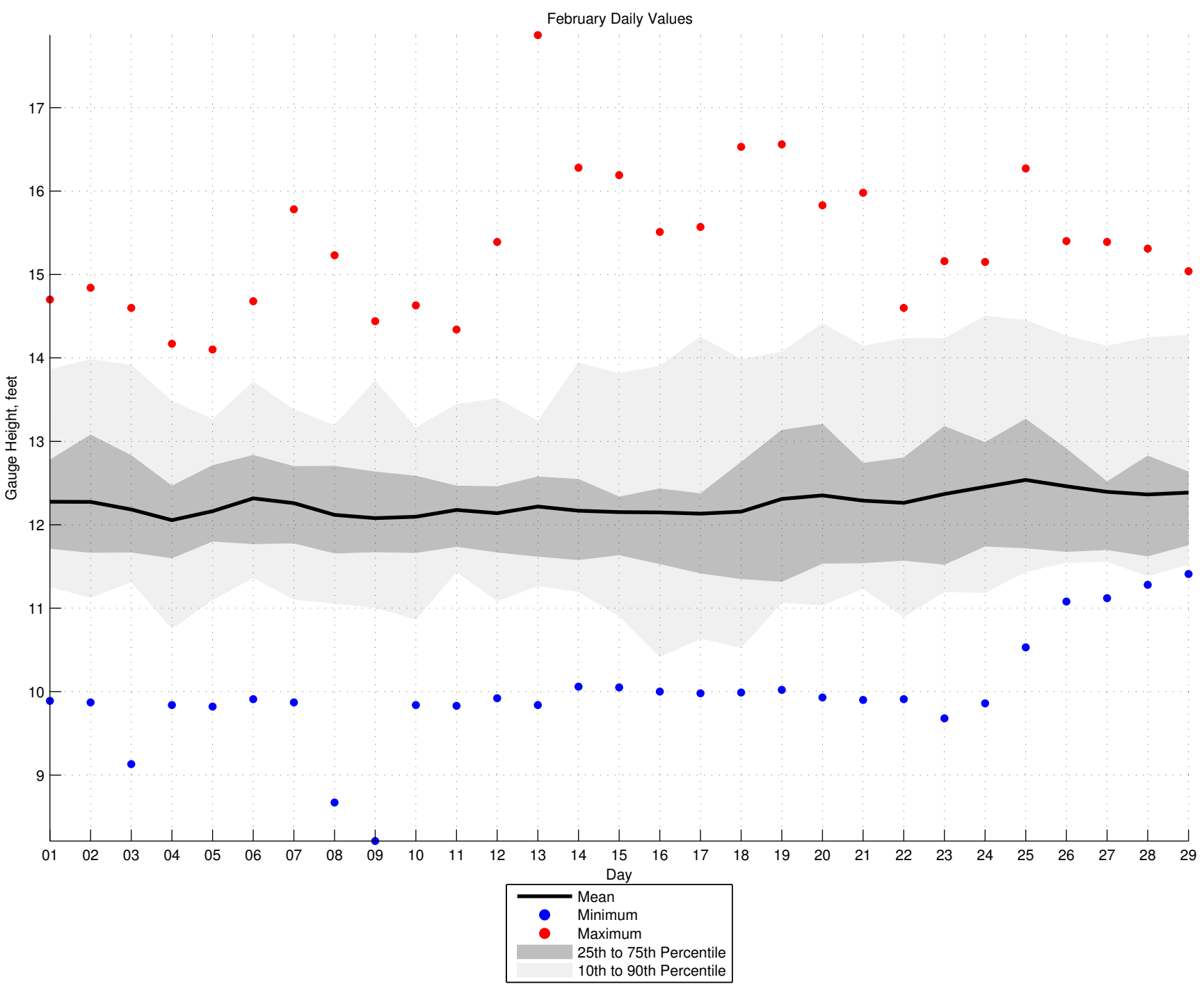
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile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Gauge Height, feet
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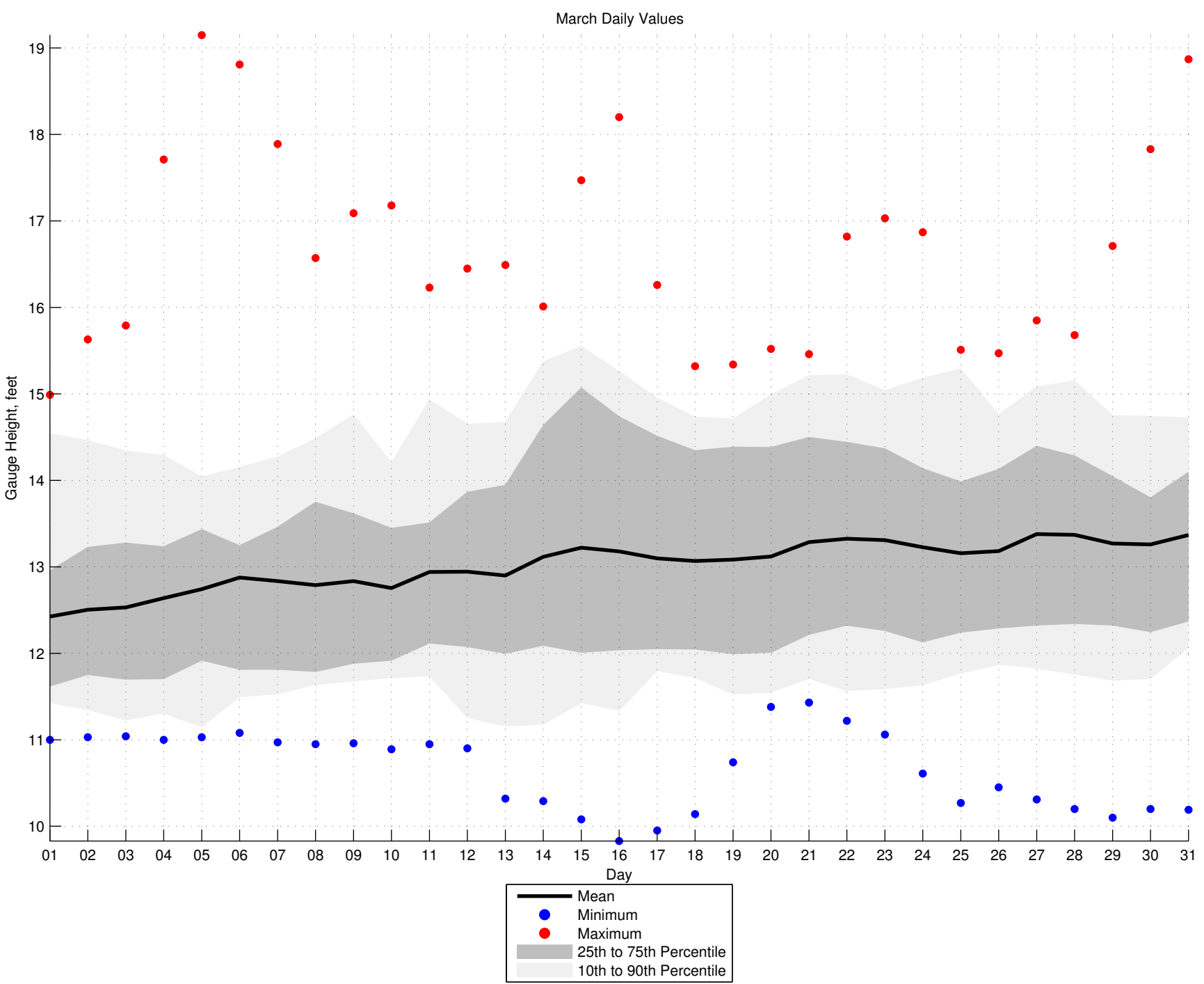
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile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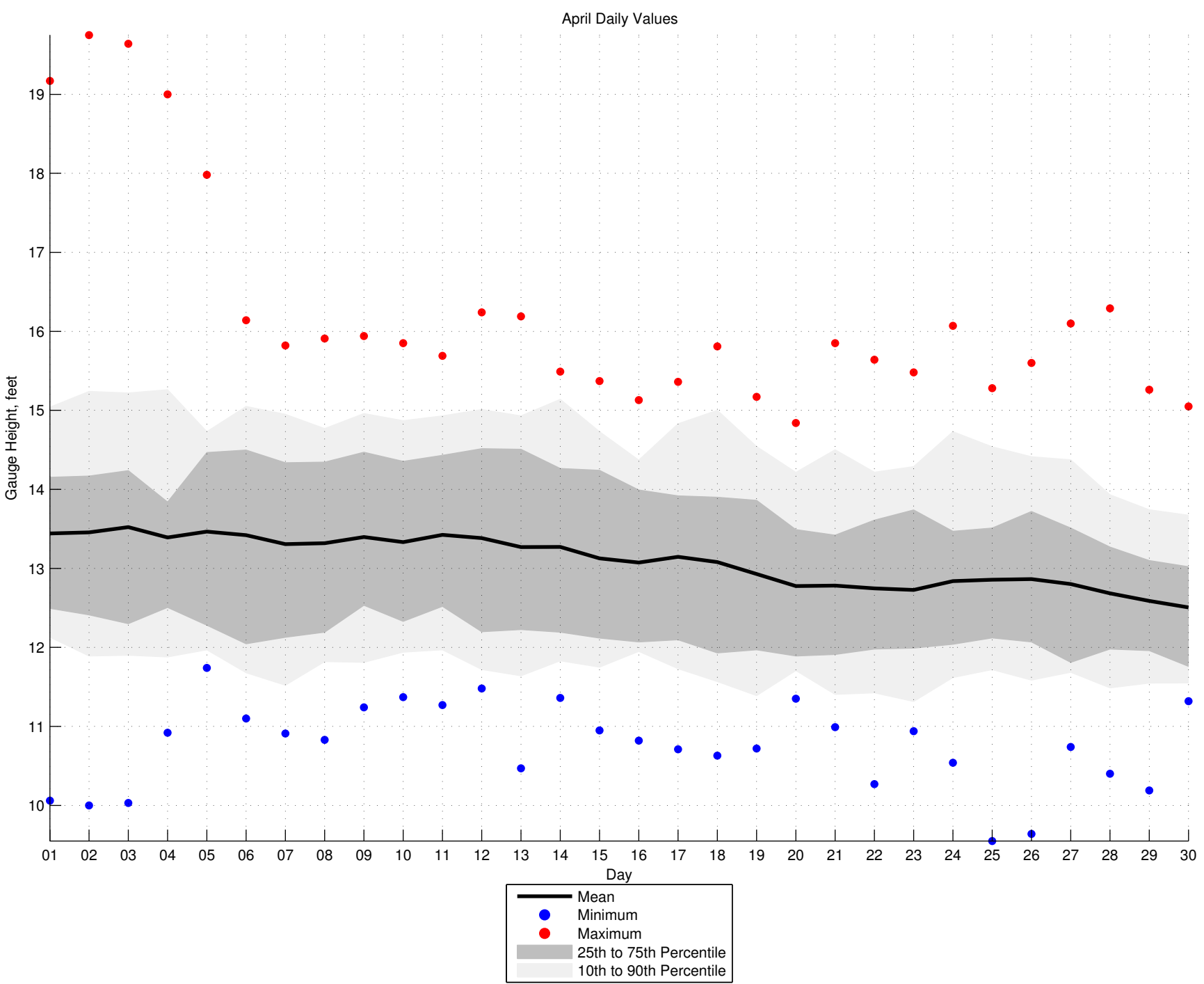
Gauge Height, feet
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile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Gauge Height, feet
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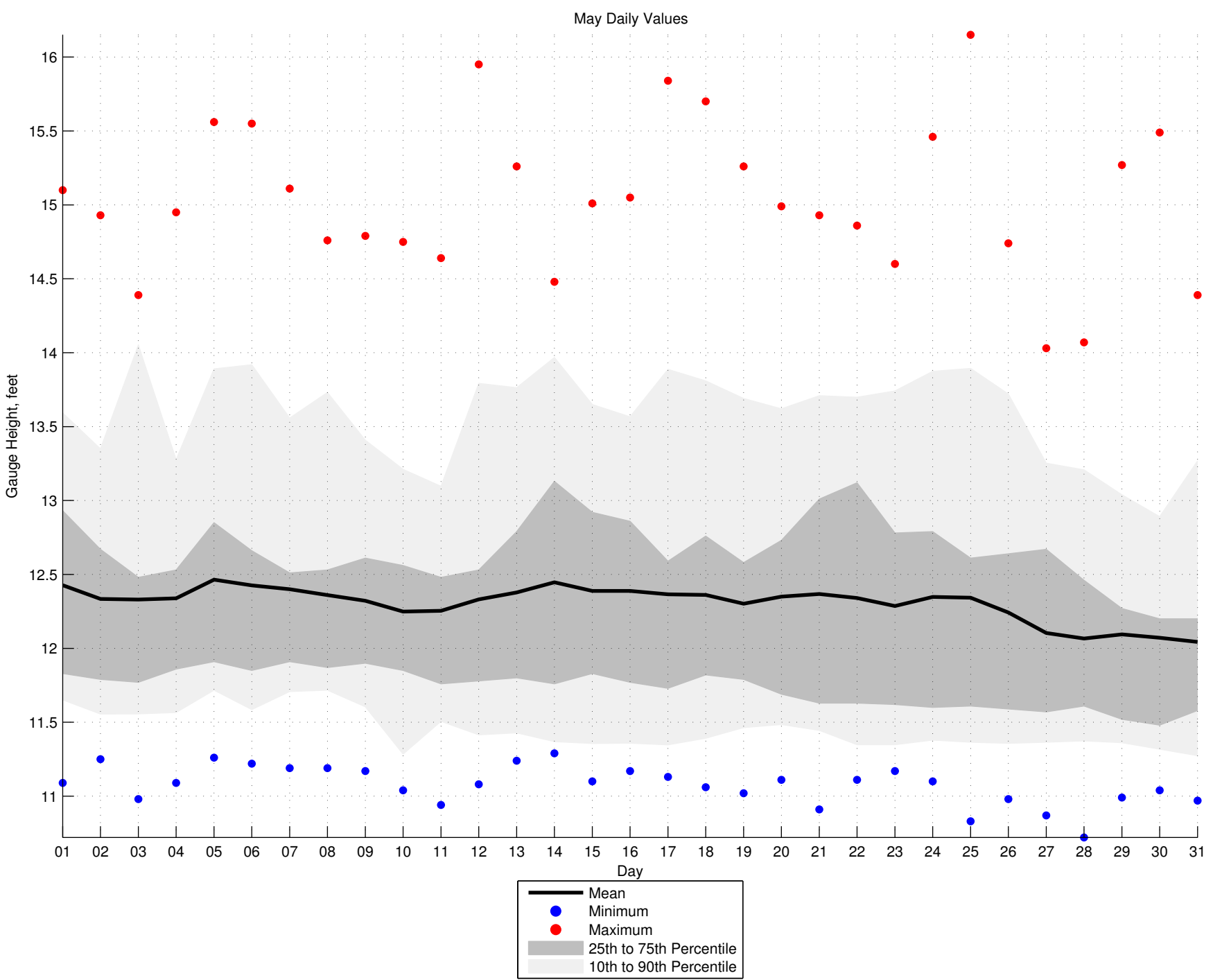
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile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Gauge Height, feet
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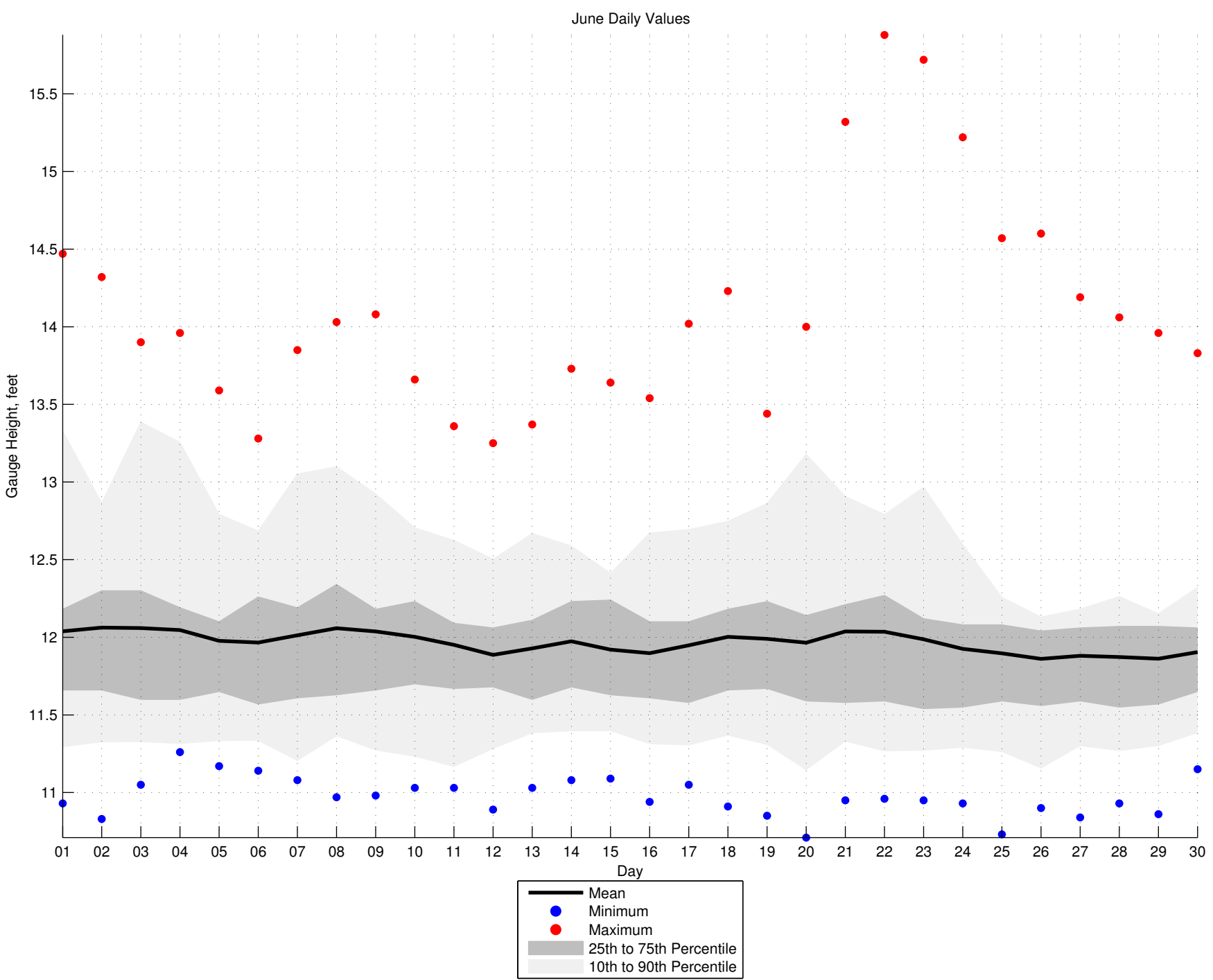
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile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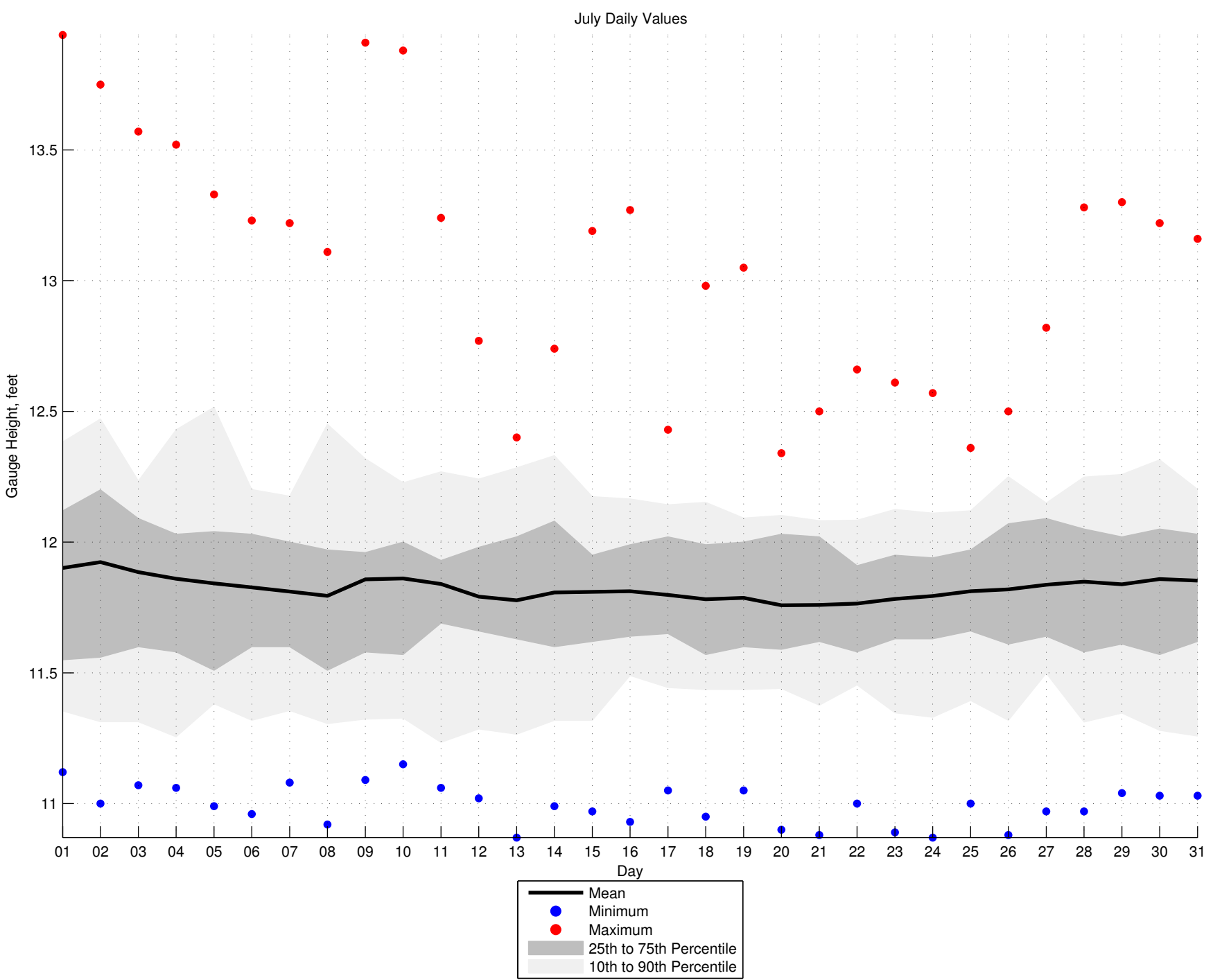
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile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Gauge Height, feet
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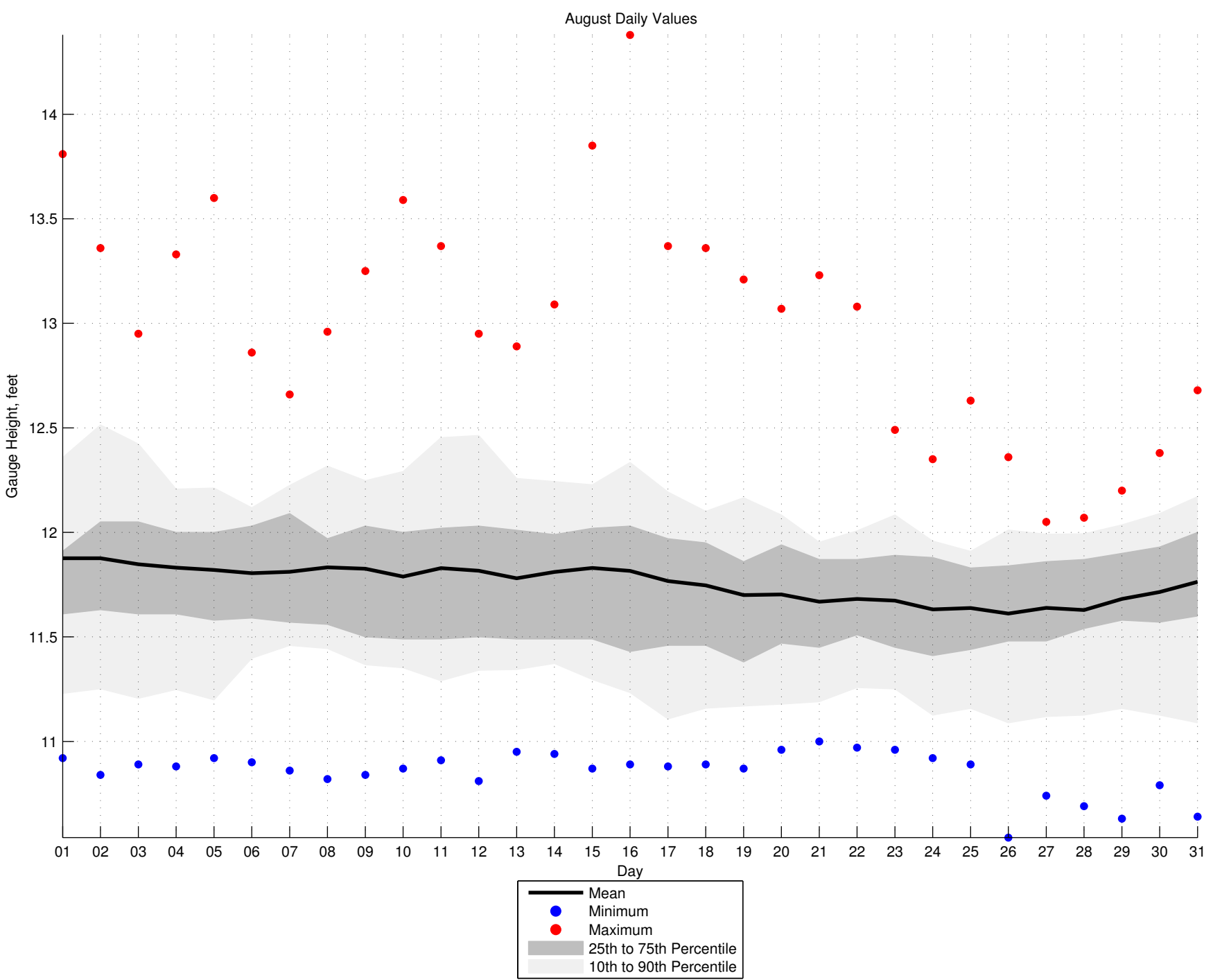
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile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Gauge Height, feet
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Mean
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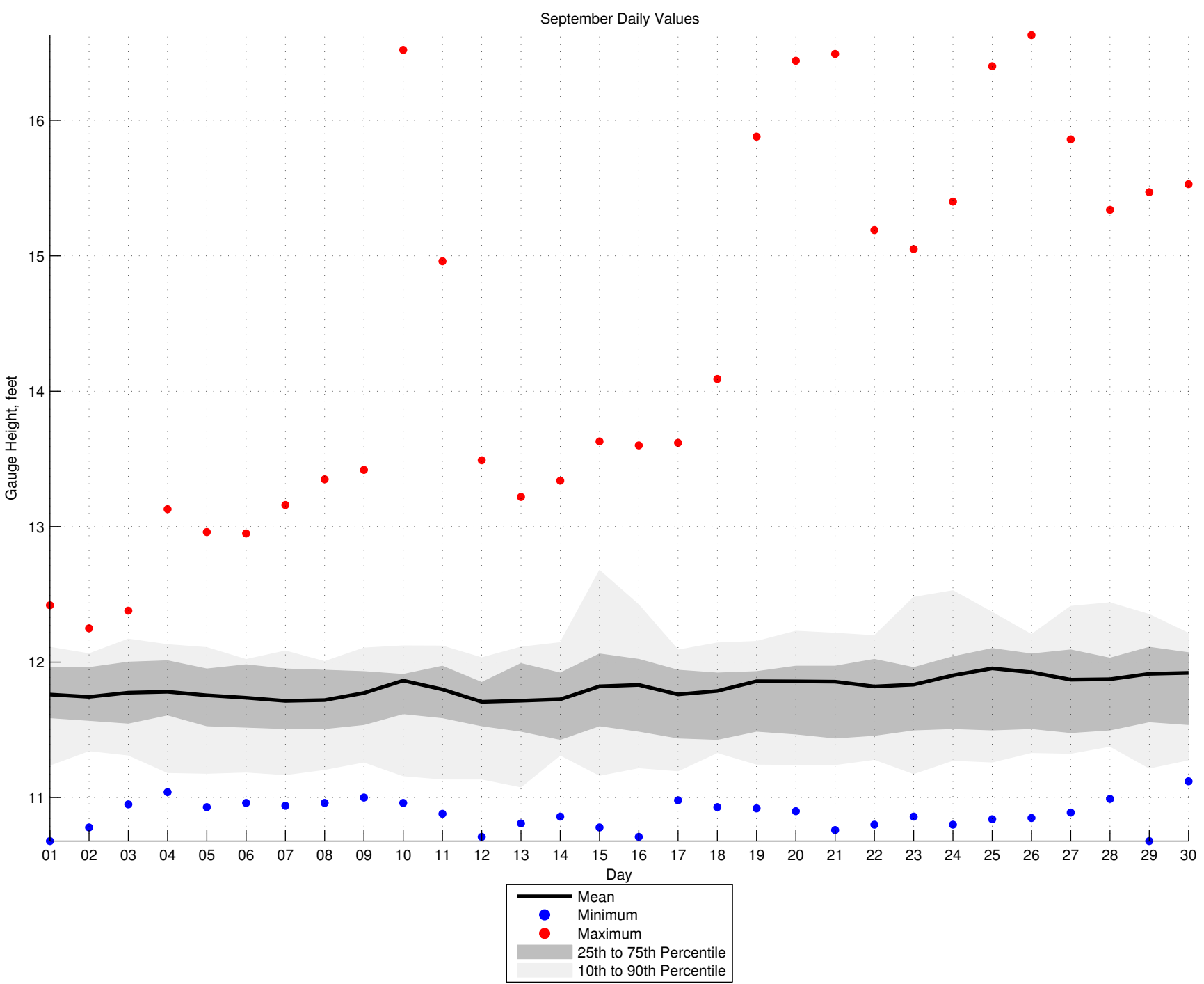
Maximum
25th to 75th Percentile
10th to 90th Percentile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Gauge Height, feet
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Mean
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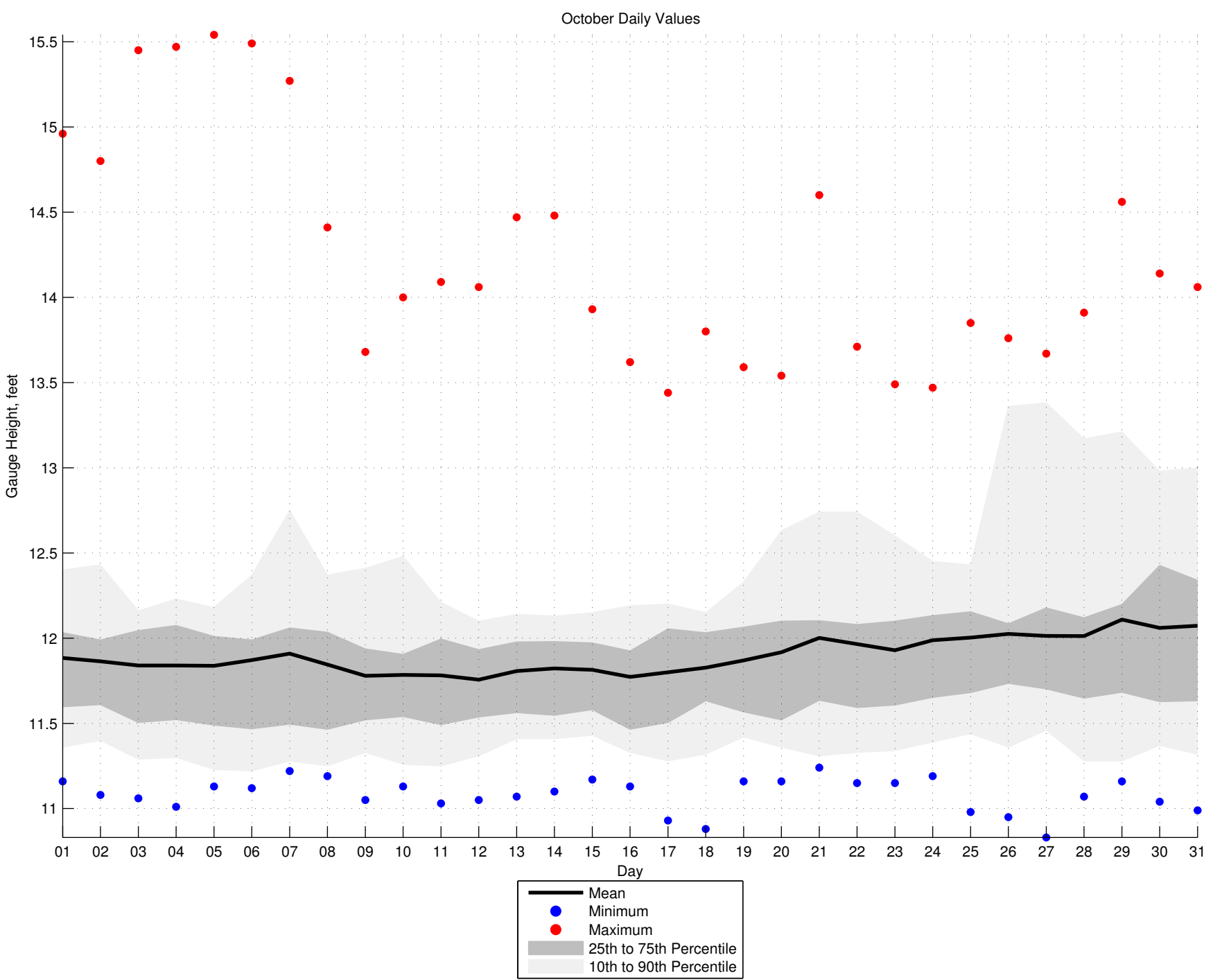
Maximum
25th to 75th Percentile
10th to 90th Percentile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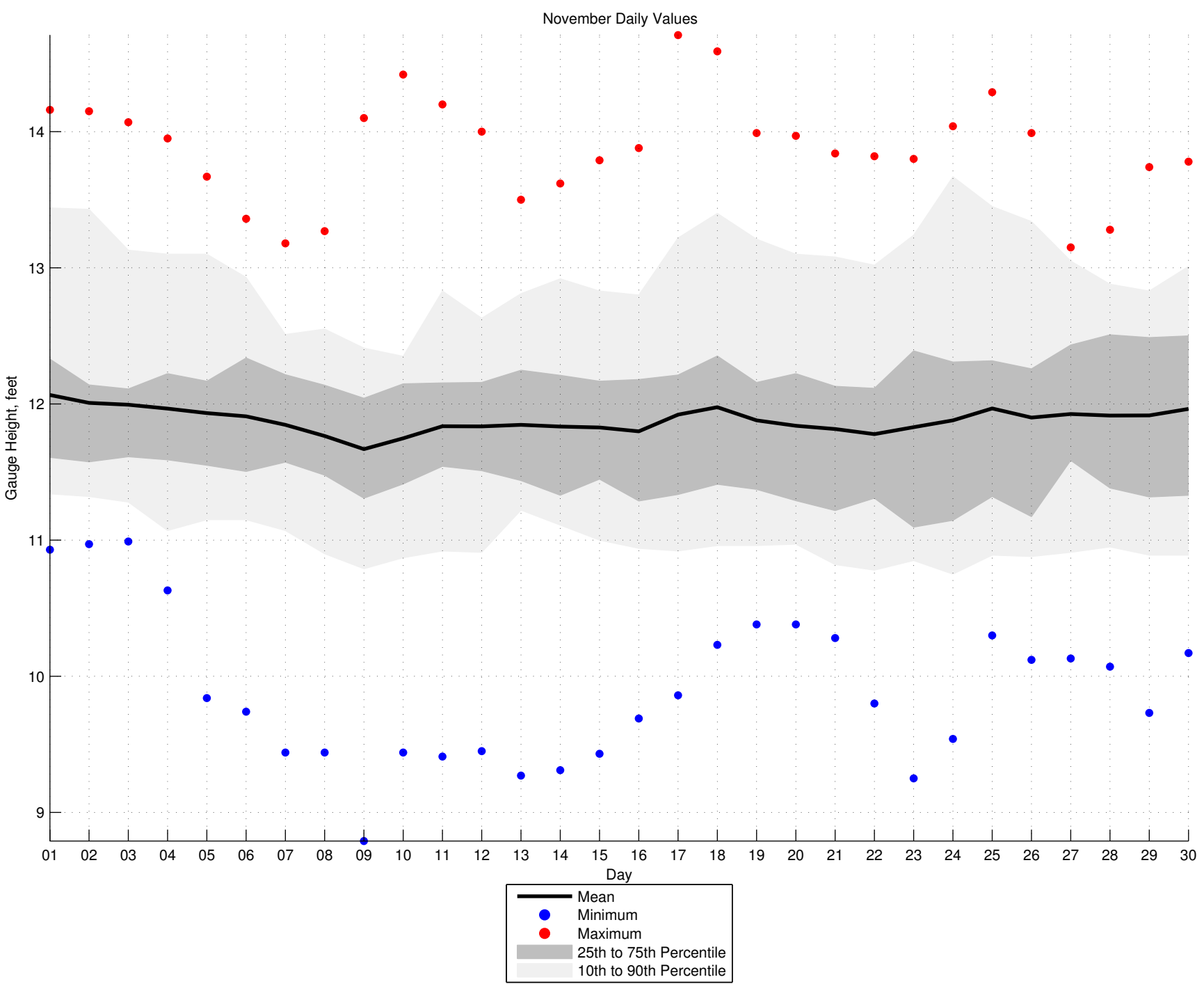
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile


November Daily Values
Gauge Height, feet
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12
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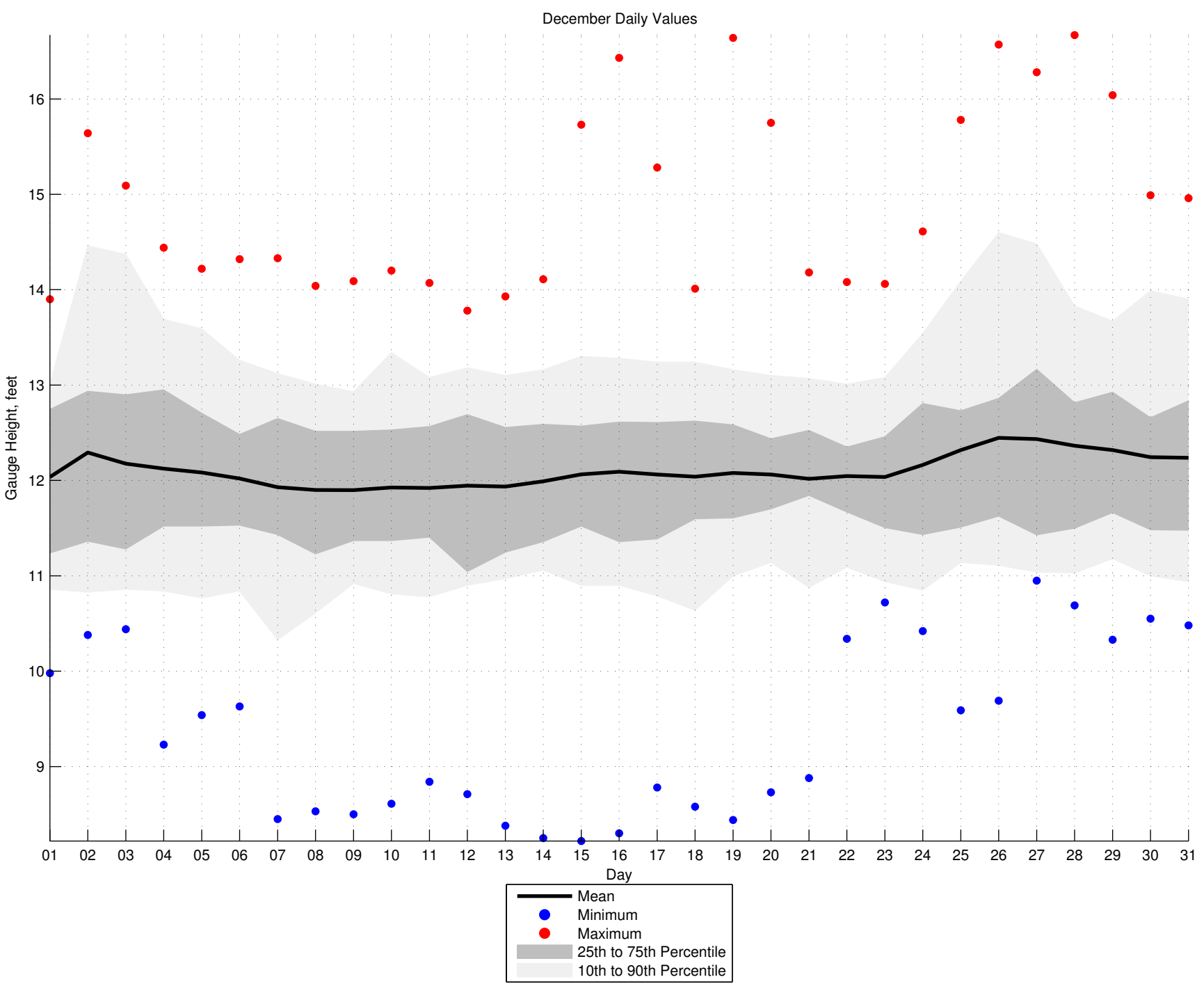
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile


December Daily Values
Gauge Height, feet
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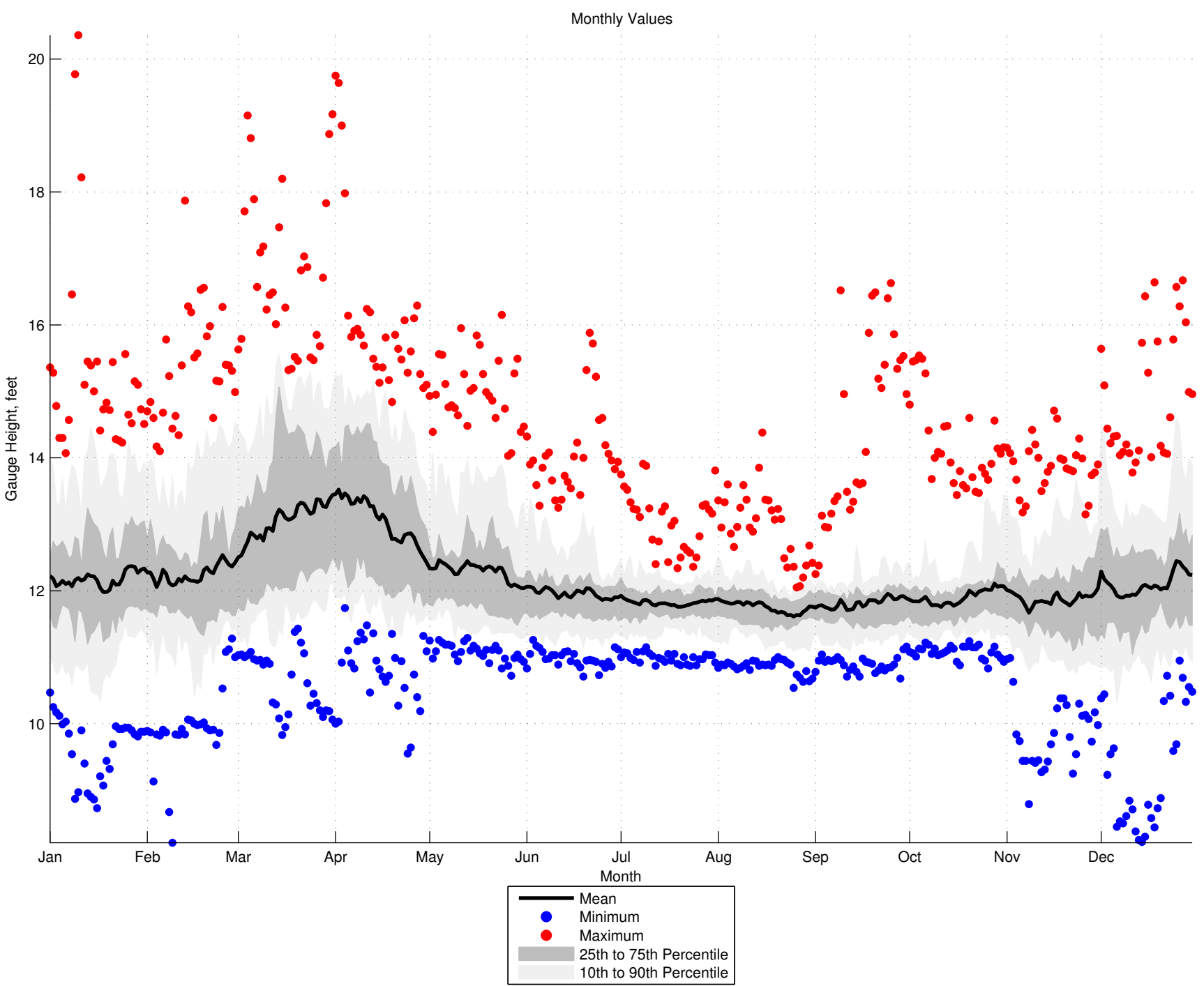
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile


Monthly Values
Gauge Height, feet
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Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile

APPENDIX C

FORD STREET BRIDGE

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY

Southwestern Lake Ontario Basin
Lower Genesee Subbasin

LOCATION.--Lat 43°08'30.2", long 77°36'58.7" referenced to North American Datum of 1983, Monroe County, NY, Hydrologic Unit 04130003, on left bank, adjacent to floodwall, about 400 ft upstream of the Ford Street bridge, in Rochester.

DRAINAGE AREA.--2,474 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1904 to September 1918, December 1919 to current year. Published as 04231500, "below Erie Canal at Rochester," 1904-18, as 04232000, "at Driving Park Avenue," 1919-68, and "at Rochester," 1969-2005.

GAGE.--Acoustic velocity meter and water-stage recorder. Acoustic velocity meter since 2005. Elevation of gage is 512 ft above NGVD of 1929, from topographic map. Apr. 1904 to Dec. 1910, nonrecording gage and Dec. 1910 to Sept. 1918, water-stage recorder at site 1.9 mi upstream at datum 506.85 ft, Barge Canal datum. Dec. 1919 to Apr. 4, 1927, water-stage recorder in plant 5, and Apr. 4, 1927 to June 19, 1956, at site 3.1 mi downstream at datum 250.00 ft above NGVD of 1929. June 20, 1956 to Sept. 30, 1969, at site 3.1 mi downstream at datum 247.00 ft above NGVD of 1929. Oct. 1, 1969 to Sept. 30, 1985, at site 3.1 mi downstream at datum 246.24 ft above NGVD of 1929. Oct. 1, 1985 to Sep. 30, 2005, at site 3.1 mi downstream at datum 244.24 ft above NGVD of 1929 (245.00 ft, Barge Canal datum).

REMARKS.--Records good except those below 800 ft^3/s, which are fair, and those for estimated daily discharges, which are poor. Occasional fluctuation caused by powerplant downstream from station. New York State Erie (Barge) Canal crosses river 1.8 mi upstream from station. Water diverted by the canal from Lake Erie is discharged into river from the west, the canal again diverting a smaller amount of water from river to the east. Additional regulation is provided by Rushford Lake, Mount Morris Lake (see station 04224000), and Conesus Lake (see station 04227980). Telephone and satellite gage height and velocity telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, since construction of Mt. Morris Reservoir in 1951, 29,600 ft^3/s, June 25, 1972, gage height, 15.89 ft, site and datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, about 54,000 ft^3/s, Mar. 18, 1865.

EXTREMES FOR PERIOD PRIOR TO REGULATION.--Maximum discharge, prior to construction of Mt. Morris Reservoir in 1951, 48,300 ft^3/s, Mar. 30, 1916, gage height, 15.3 ft, site and datum then in use; minimum discharge (at gage site located 3.1 mi downstream), less than 10 ft^3/s, occurred during low-water periods in some years when power plant was shut down.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 12,000 ft^3/s, Mar. 13; minimum daily discharge, 582 ft^3/s, Aug. 2. Maximum and minimum instantaneous discharges not determined.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 04231600, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/04231600.2011.pdf

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2,330	2,360	4,850	e1,940	e1,150	6,680	8,580	9,690	7,990	1,440	689	859
2	4,930	2,080	10,900	3,830	e1,080	8,150	8,440	9,550	6,880	1,120	582	584
3	4,260	2,130	9,730	5,290	e1,080	8,870	7,710	8,730	6,510	1,090	733	764
4	3,190	2,180	7,520	4,410	e1,290	8,020	5,030	9,600	6,190	1,020	686	751
5	2,330	2,250	6,910	2,830	e1,350	6,580	5,800	10,500	6,080	851	719	1,070
6	4,270	2,100	6,950	e2,270	e1,450	8,860	8,100	10,300	6,050	997	832	880
7	6,860	2,080	7,190	e2,510	e1,490	11,900	8,670	9,910	5,810	829	864	909
8	7,340	1,920	6,730	e1,730	e1,480	11,700	8,780	8,940	5,480	1,020	729	957
9	6,020	1,860	6,630	e1,670	e1,410	9,950	8,720	8,990	4,530	870	1,240	1,060
10	5,170	1,750	6,600	e1,420	e1,330	7,040	8,350	8,870	3,060	878	889	1,020
11	4,570	1,760	6,610	e1,520	e1,280	9,610	8,050	8,810	1,950	1,050	931	1,010
12	3,800	1,760	6,000	e1,470	e1,350	11,900	7,540	8,880	1,760	935	854	873
13	2,470	1,670	6,270	e1,310	e1,350	12,000	8,440	8,560	1,880	788	861	1,080
14	2,360	1,670	6,710	e1,310	e1,480	11,100	e10,000	7,990	1,670	908	e800	1,010
15	2,060	1,590	e6,800	e1,390	e1,650	10,000	e9,500	6,400	1,710	877	e2,450	1,060
16	2,090	1,340	6,010	e1,430	e1,910	9,710	7,840	9,300	1,570	780	2,600	913
17	2,380	1,990	5,550	e1,310	e2,090	9,470	6,320	10,400	1,580	783	1,280	958
18	2,450	3,800	4,250	e1,280	e3,390	9,150	7,450	11,000	1,590	714	1,050	957
19	2,120	4,230	3,120	e1,440	10,600	9,070	7,810	10,300	1,500	733	998	965
20	2,000	3,610	e2,530	e1,550	10,500	9,340	8,410	9,880	1,360	792	719	954
21	2,090	2,620	e2,420	e1,530	9,610	8,990	10,800	9,580	1,210	713	1,130	888
22	2,310	2,200	e2,290	e1,370	8,690	7,610	10,100	9,660	1,480	700	918	726
23	2,230	2,300	e2,230	e1,240	8,050	8,010	9,950	8,840	1,830	733	844	852
24	2,220	3,370	e1,760	e1,070	6,900	8,770	11,100	8,370	2,430	649	999	893
25	2,290	3,350	e1,610	e1,090	6,080	9,390	9,160	8,570	2,460	782	1,130	851
26	2,170	2,570	e1,550	e1,100	7,040	9,210	9,540	8,700	2,470	667	1,320	833
27	2,590	3,060	e1,270	e1,230	7,260	8,690	11,400	6,510	2,190	782	1,540	870
28	3,180	3,270	e1,280	e1,350	6,030	8,470	11,900	7,950	1,910	755	1,110	984
29	3,550	2,590	e1,470	e1,340	---	8,140	9,820	8,460	1,610	896	827	1,140
30	2,590	2,280	e1,350	e1,300	---	7,900	9,320	8,340	1,520	769	712	1,550
31	2,400	---	e1,550	e1,230	---	8,180	---	8,710	---	778	839	---
Total	100,620	71,740	146,640	55,760	108,370	282,460	262,630	280,290	94,260	26,699	31,875	28,221
Mean	3,246	2,391	4,730	1,799	3,870	9,112	8,754	9,042	3,142	861	1,028	941
Max	7,340	4,230	10,900	5,290	10,600	12,000	11,900	11,000	7,990	1,440	2,600	1,550
Min	2,000	1,340	1,270	1,070	1,080	6,580	5,030	6,400	1,210	649	582	584

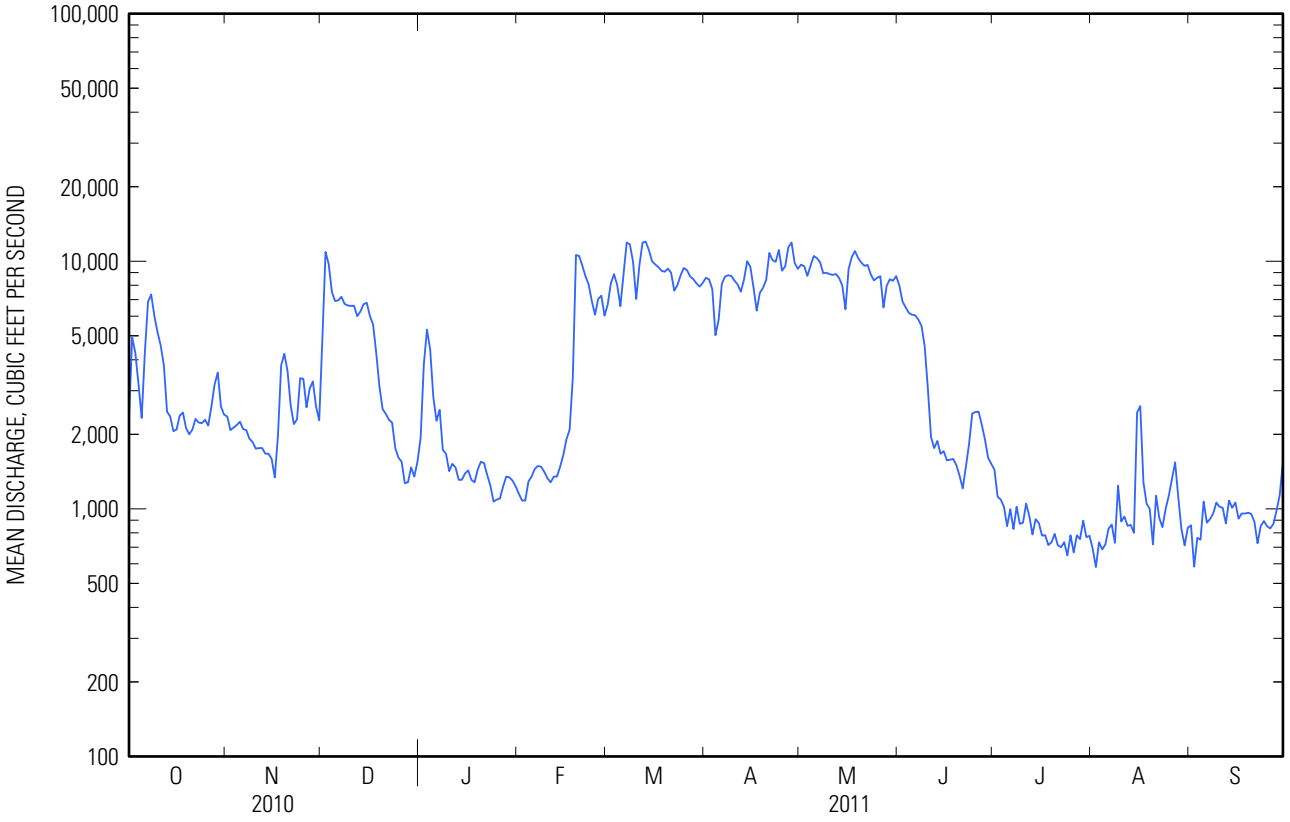
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,514	2,161	2,866	2,947	3,256	6,182	5,981	3,531	2,101	1,330	1,029	1,059
Max	7,095	7,383	9,973	8,830	9,157	14,300	14,160	10,230	7,311	8,524	4,825	6,722
(WY)	(1978)	(1928)	(1928)	(1913)	(1925)	(1945)	(1940)	(1943)	(1972)	(1972)	(2003)	(1977)
Min	338	436	502	152	560	2,213	1,561	1,140	479	350	229	199
(WY)	(1914)	(1910)	(1910)	(1961)	(1920)	(1937)	(1946)	(1915)	(1915)	(1913)	(1913)	(1913)

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1904 - 2011	
Annual total	1,003,375		1,489,565			
Annual mean	2,749		4,081		2,846	
Highest annual mean					4,426	1978
Lowest annual mean					1,663	1999
Highest daily mean	12,300	Mar 24	12,000	Mar 13	46,300	Mar 31, 1916
Lowest daily mean	688	Aug 20	582	Aug 2	91	Jan 9, 1961
Annual seven-day minimum	823	Sep 11	708	Jul 30	104	Jan 26, 1961
10 percent exceeds	6,720		9,480		6,970	
50 percent exceeds	1,900		2,250		1,630	
90 percent exceeds	982		851		612	



04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 2010 to September 2011.
CHEMICAL DATA: Water year 2011 (d).
NUTRIENT DATA: Water year 2011 (d).
BIOLOGICAL DATA: Water year 2011 (b).
INORGANIC DATA: Water year 2011 (b).
ORGANIC DATA: Water year 2011 (b).
SEDIMENT DATA: Water year 2011 (d).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: December 2010 to September 2011.
SPECIFIC CONDUCTANCE: December 2010 to September 2011.
pH: December 2010 to September 2011.
DISSOLVED OXYGEN: December 2010 to September 2011.
TURBIDITY: December 2010 to September 2011.

INSTRUMENTATION.--ISCO refrigerated automatic sampler since August 2010. A YSI 6920-V2 continuous monitor with water temperature, specific conductance, pH, dissolved oxygen and turbidity since December 2010 provides 15-minute-interval readings.

COOPERATION.--In cooperation with the U.S. Environmental Protection Agency's Great Lakes Restoration Initiative (GLRI).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 29.9°C, July 24, 2011; minimum, 0.0°C, on many days during winter period.
SPECIFIC CONDUCTANCE: Maximum, 828 µS/cm @ 25°C, Feb. 15, 2011; minimum, 255 µS/cm @ 25°C, Apr. 12, 2011.
pH: Maximum, 8.6 , July 17, 19, 2011; minimum, 7.6 , Aug. 17, 18, 19, 20, Sept. 28, 2011.
DISSOLVED OXYGEN: Maximum, 14.8 mg/L, July 17, 2011; minimum, 5.3 mg/L, Aug. 17, 29, 2011.
TURBIDITY: Maximum, 900 FNU, Feb. 20, 2011; minimum, 11 FNU, on several days during winter period.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 29.9°C, July 24; minimum, 0.0°C, on many days.
SPECIFIC CONDUCTANCE: Maximum, 828 µS/cm @ 25°C, Feb. 15; minimum, 255 µS/cm @ 25°C, Apr. 12.
pH: Maximum, 8.6, July 17, 19; minimum, 7.6, Aug. 17, 18, 19, 20, Sept. 28.
DISSOLVED OXYGEN: Maximum, 14.8 mg/L, July 17; minimum, 5.3 mg/L, Aug. 17, 29.
TURBIDITY: Maximum, 900 FNU, Feb. 20; minimum, 11 FNU, on several days.

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		October			November			December			January	
1	---	---	---	---	---	---	---	---	---	1.2	0.2	0.7
2	---	---	---	---	---	---	---	---	---	1.2	0.5	0.8
3	---	---	---	---	---	---	---	---	---	0.6	0.1	0.3
4	---	---	---	---	---	---	---	---	---	0.2	0.0	0.1
5	---	---	---	---	---	---	---	---	---	0.3	0.1	0.2
6	---	---	---	---	---	---	---	---	---	0.2	0.0	0.1
7	---	---	---	---	---	---	---	---	---	0.2	0.0	0.0
8	---	---	---	---	---	---	---	---	---	0.1	0.0	0.1
9	---	---	---	---	---	---	---	---	---	0.1	0.0	0.1
10	---	---	---	---	---	---	---	---	---	0.1	0.0	0.1
11	---	---	---	---	---	---	---	---	---	0.1	0.0	0.1
12	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
13	---	---	---	---	---	---	---	---	---	0.1	0.0	0.1
14	---	---	---	---	---	---	---	---	---	0.1	0.0	0.1
15	---	---	---	---	---	---	0.8	0.5	0.7	0.1	0.0	0.0
16	---	---	---	---	---	---	0.8	0.4	0.6	0.1	0.0	0.0
17	---	---	---	---	---	---	0.6	0.4	0.5	0.1	0.0	0.0
18	---	---	---	---	---	---	0.6	0.2	0.4	0.1	0.0	0.1
19	---	---	---	---	---	---	0.2	0.0	0.1	0.1	0.1	0.1
20	---	---	---	---	---	---	0.2	0.1	0.1	0.1	0.0	0.1
21	---	---	---	---	---	---	0.3	0.1	0.2	0.1	0.0	0.1
22	---	---	---	---	---	---	0.2	0.1	0.1	0.1	0.0	0.1
23	---	---	---	---	---	---	0.2	0.1	0.1	0.1	0.0	0.0
24	---	---	---	---	---	---	0.2	0.1	0.1	0.1	0.0	0.1
25	---	---	---	---	---	---	0.2	0.1	0.1	0.1	0.0	0.1
26	---	---	---	---	---	---	0.1	0.1	0.1	0.1	0.1	0.1
27	---	---	---	---	---	---	0.1	0.0	0.1	0.1	0.0	0.1
28	---	---	---	---	---	---	0.2	0.1	0.1	0.1	0.0	0.0
29	---	---	---	---	---	---	0.1	0.1	0.1	0.1	0.0	0.1
30	---	---	---	---	---	---	0.2	0.1	0.2	0.1	0.0	0.1
31	---	---	---	---	---	---	0.3	0.1	0.2	0.1	0.1	0.1
Month	---	---	---	---	---	---	---	---	---	1.2	0.0	0.1

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

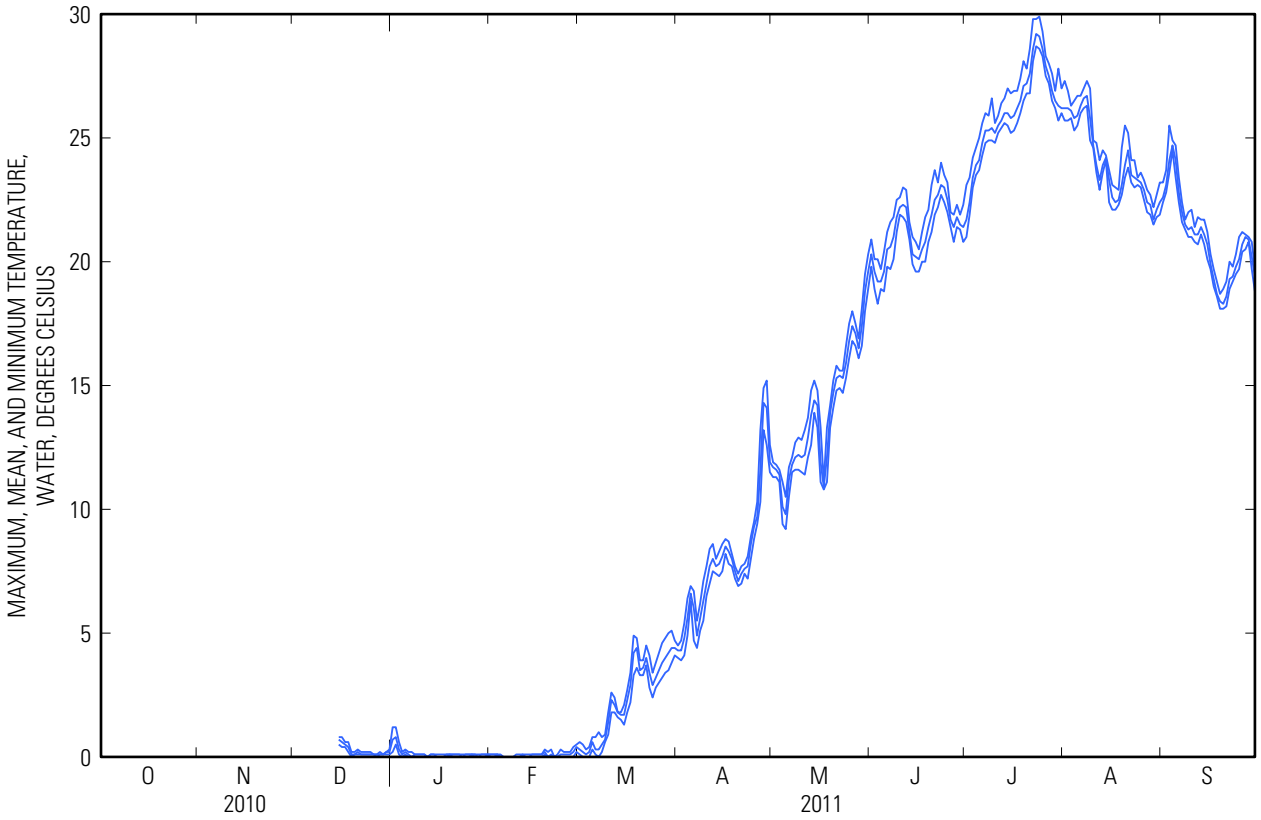
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February			March			April			May	
1	0.1	0.0	0.1	0.6	0.1	0.3	4.5	4.0	4.3	11.9	11.3	11.7
2	0.1	0.0	0.1	0.5	0.0	0.2	4.7	3.9	4.3	11.8	11.3	11.6
3	0.1	0.1	0.1	0.3	0.0	0.1	5.4	4.1	4.8	11.6	11.1	11.4
4	0.1	0.0	0.0	0.4	0.0	0.2	6.4	4.9	5.6	11.1	9.4	10.1
5	0.0	0.0	0.0	0.8	0.3	0.6	6.9	6.3	6.6	10.5	9.2	9.8
6	0.0	0.0	0.0	0.8	0.1	0.3	6.7	4.7	6.0	11.7	10.5	11.2
7	0.0	0.0	0.0	1.0	0.0	0.3	5.5	4.4	4.9	12.1	11.5	11.8
8	0.0	0.0	0.0	0.8	0.2	0.5	6.2	5.1	5.6	12.7	11.6	12.1
9	0.1	0.0	0.0	0.9	0.6	0.7	7.1	5.5	6.3	12.9	11.6	12.2
10	0.1	0.0	0.0	1.8	0.9	1.4	7.7	6.5	7.0	12.8	11.5	12.1
11	0.1	0.0	0.1	2.6	1.8	2.3	8.4	7.0	7.7	13.2	11.4	12.2
12	0.1	0.0	0.0	2.4	1.8	2.1	8.6	7.5	8.0	13.7	12.1	12.9
13	0.1	0.0	0.0	1.8	1.6	1.8	8.0	7.4	7.7	14.8	12.6	13.8
14	0.1	0.0	0.1	1.8	1.5	1.7	8.3	7.3	7.8	15.2	13.9	14.4
15	0.1	0.0	0.1	2.1	1.3	1.7	8.6	7.5	8.1	14.8	13.3	14.2
16	0.1	0.0	0.1	2.7	1.8	2.3	8.8	8.2	8.5	13.3	11.1	11.9
17	0.1	0.0	0.1	3.4	2.2	2.9	8.7	7.8	8.3	11.1	10.8	10.9
18	0.3	0.1	0.2	4.9	3.3	4.2	8.2	7.7	8.0	13.3	11.1	12.1
19	0.2	0.0	0.0	4.8	3.6	4.4	7.7	7.2	7.5	14.2	13.3	13.9
20	0.3	0.0	0.1	3.9	3.3	3.5	7.4	6.9	7.1	15.2	14.1	14.7
21	0.0	0.0	0.0	3.9	3.3	3.6	7.7	7.0	7.4	15.8	14.8	15.3
22	0.1	0.0	0.0	4.5	3.7	4.0	7.8	7.4	7.6	15.6	14.9	15.4
23	0.3	0.0	0.1	4.1	2.8	3.4	8.1	7.2	7.7	15.6	14.7	15.3
24	0.2	0.0	0.1	3.4	2.4	2.9	8.9	8.0	8.6	16.6	15.3	15.9
25	0.2	0.0	0.1	3.8	2.8	3.2	9.5	8.8	9.3	17.5	16.1	16.8
26	0.2	0.0	0.1	4.2	3.0	3.5	10.3	9.4	9.7	18.0	16.8	17.4
27	0.4	0.0	0.2	4.6	3.2	3.8	13.2	10.3	11.6	17.5	16.6	17.1
28	0.5	0.2	0.4	4.8	3.4	4.0	14.9	13.2	14.3	16.9	16.1	16.5
29	---	---	---	5.0	3.5	4.2	15.2	12.6	14.1	18.1	16.6	17.4
30	---	---	---	5.1	3.8	4.4	12.6	11.5	11.9	19.5	18.0	18.8
31	---	---	---	4.7	4.1	4.4	---	---	---	20.3	18.9	19.6
Month	0.5	0.0	0.1	5.1	0.0	2.4	15.2	3.9	7.9	20.3	9.2	13.9

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			September	
1	20.9	19.8	20.3	23.1	21.0	21.7	27.3	25.7	26.2	23.2	22.4	22.6
2	20.1	18.9	19.6	23.4	21.9	22.4	26.9	25.7	26.2	23.7	22.8	23.1
3	20.1	18.3	19.2	24.2	23.0	23.4	26.3	25.8	26.1	25.5	23.6	24.1
4	19.7	18.9	19.2	24.6	23.5	23.9	26.5	25.3	25.8	24.9	24.5	24.7
5	20.4	18.8	19.6	25.0	23.7	24.1	26.7	25.5	25.9	24.7	23.4	24.1
6	21.2	19.8	20.5	25.6	24.3	24.8	26.7	26.0	26.3	23.4	22.4	22.8
7	21.6	19.7	20.6	26.0	24.8	25.3	27.0	26.2	26.6	22.4	21.6	22.0
8	21.8	20.1	21.0	25.9	24.9	25.3	27.3	26.3	26.7	21.7	21.3	21.5
9	22.5	21.2	21.8	26.6	24.9	25.4	27.0	24.9	25.8	22.0	21.0	21.3
10	22.6	21.9	22.2	25.6	24.8	25.2	24.9	24.6	24.7	22.1	21.0	21.4
11	23.0	21.8	22.3	25.9	25.2	25.5	24.8	23.6	23.9	21.4	20.8	21.1
12	22.9	21.6	22.2	26.4	25.4	25.7	24.1	22.9	23.3	21.8	20.7	21.1
13	21.6	20.9	21.2	26.6	25.6	26.0	24.5	23.6	23.9	21.7	21.1	21.4
14	21.0	19.9	20.3	27.0	25.5	26.0	24.3	24.1	24.2	21.7	20.7	21.1
15	20.8	19.6	20.2	26.8	25.2	25.8	23.7	22.4	23.3	21.2	20.1	20.7
16	20.5	19.6	20.1	26.9	25.3	25.9	23.1	22.1	22.6	20.3	19.7	19.9
17	21.2	20.0	20.5	26.9	25.6	26.2	23.0	22.1	22.4	19.7	19.0	19.3
18	21.8	20.0	20.8	27.4	26.0	26.5	22.9	22.3	22.5	19.2	18.6	18.7
19	22.1	20.8	21.4	28.1	26.5	27.1	24.6	22.7	23.1	18.7	18.1	18.4
20	23.1	21.2	21.9	27.8	26.8	27.2	25.5	23.4	23.9	18.9	18.1	18.3
21	23.7	21.9	22.5	28.6	26.8	27.6	25.2	23.8	24.5	19.2	18.2	18.6
22	23.2	22.2	22.7	29.8	28.1	28.6	24.1	23.2	23.5	20.0	18.9	19.3
23	24.0	22.7	23.1	29.8	28.7	29.2	24.1	23.0	23.4	19.8	19.2	19.4
24	23.5	22.4	23.0	29.9	28.6	29.1	23.4	23.1	23.3	20.3	19.5	19.8
25	23.2	22.0	22.5	29.3	28.3	28.6	23.6	23.0	23.2	21.0	19.7	20.1
26	22.0	21.4	21.7	28.3	27.5	27.9	23.3	22.5	22.9	21.2	20.4	20.7
27	21.9	20.8	21.4	28.0	27.2	27.5	22.9	22.0	22.4	21.1	20.5	21.0
28	22.3	21.4	21.8	27.6	26.5	26.9	22.7	21.9	22.3	21.0	20.8	20.9
29	21.9	21.3	21.5	26.9	26.2	26.5	22.2	21.5	21.7	20.8	19.7	20.2
30	22.3	20.8	21.4	27.8	25.7	26.3	22.7	21.8	22.1	19.7	18.8	19.4
31	---	---	---	27.0	26.0	26.2	23.2	21.9	22.4	---	---	---
Month	24.0	18.3	21.2	29.9	21.0	26.1	27.3	21.5	24.0	25.5	18.1	20.9

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued



04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		October			November			December			January	
1	---	---	---	---	---	---	---	---	---	768	693	716
2	---	---	---	---	---	---	---	---	---	695	591	654
3	---	---	---	---	---	---	---	---	---	591	410	489
4	---	---	---	---	---	---	---	---	---	419	402	407
5	---	---	---	---	---	---	---	---	---	485	419	450
6	---	---	---	---	---	---	---	---	---	509	485	496
7	---	---	---	---	---	---	---	---	---	511	450	476
8	---	---	---	---	---	---	---	---	---	515	458	490
9	---	---	---	---	---	---	---	---	---	585	515	556
10	---	---	---	---	---	---	---	---	---	610	585	603
11	---	---	---	---	---	---	---	---	---	627	603	619
12	---	---	---	---	---	---	---	---	---	623	605	617
13	---	---	---	---	---	---	---	---	---	621	603	614
14	---	---	---	---	---	---	---	---	---	649	619	633
15	---	---	---	---	---	---	335	313	320	658	649	653
16	---	---	---	---	---	---	359	335	350	663	653	657
17	---	---	---	---	---	---	383	359	366	656	648	651
18	---	---	---	---	---	---	431	383	407	659	646	650
19	---	---	---	---	---	---	476	431	454	703	659	683
20	---	---	---	---	---	---	528	476	504	716	686	702
21	---	---	---	---	---	---	532	521	525	698	678	683
22	---	---	---	---	---	---	545	528	534	715	693	704
23	---	---	---	---	---	---	537	528	530	704	690	696
24	---	---	---	---	---	---	554	537	541	707	690	695
25	---	---	---	---	---	---	586	554	571	722	707	715
26	---	---	---	---	---	---	620	586	609	727	721	724
27	---	---	---	---	---	---	643	616	631	742	727	735
28	---	---	---	---	---	---	666	642	652	727	702	716
29	---	---	---	---	---	---	678	666	673	806	702	748
30	---	---	---	---	---	---	677	658	672	710	688	693
31	---	---	---	---	---	---	761	650	666	688	681	683
Month	---	---	---	---	---	---	---	---	---	806	402	633

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

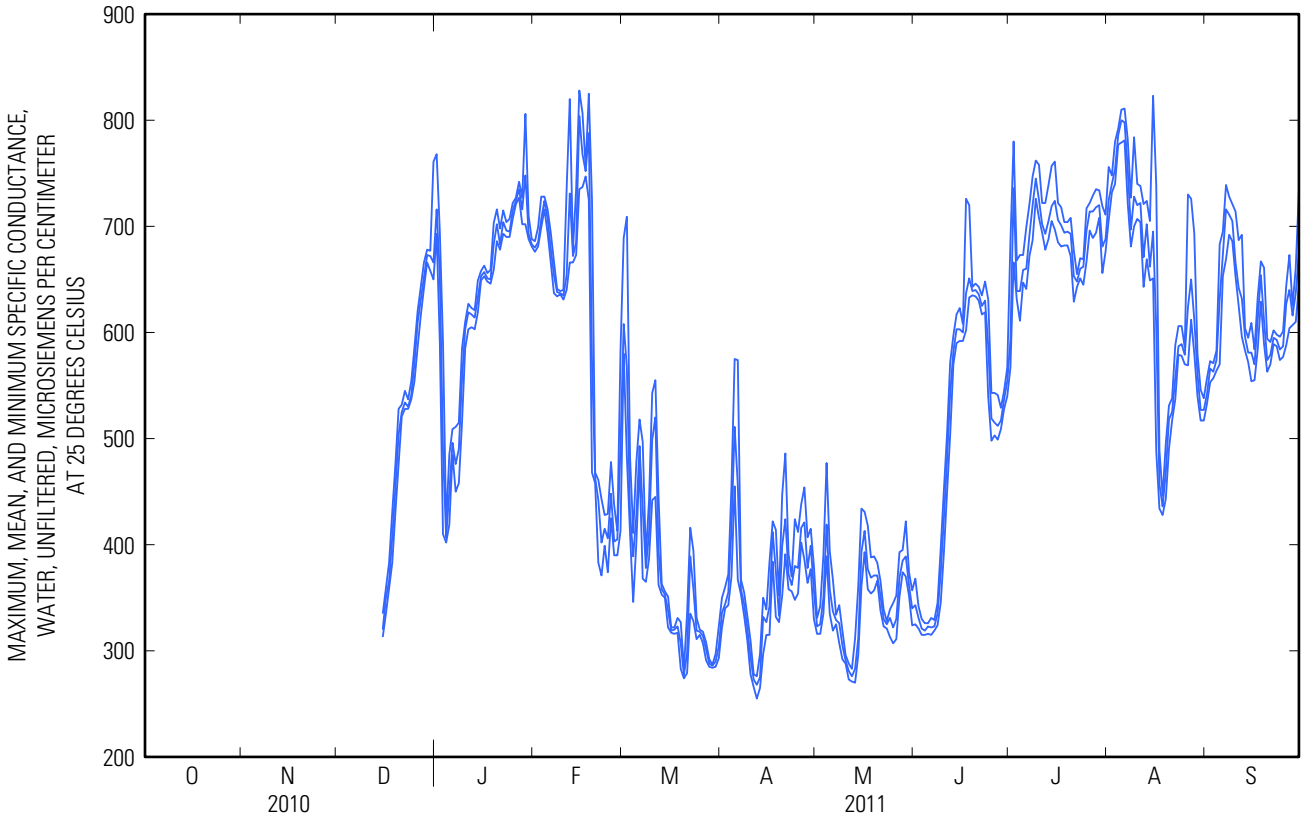
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February			March			April			May	
1	686	676	680	689	580	608	350	322	336	331	316	323
2	699	681	685	709	483	567	360	340	344	342	316	325
3	728	699	707	483	411	430	372	343	355	390	335	350
4	728	716	724	411	346	389	455	370	415	477	389	419
5	716	694	707	478	402	428	575	455	511	394	335	358
6	694	666	679	518	477	493	574	367	456	367	319	337
7	667	637	654	497	368	434	367	353	358	334	325	329
8	641	634	638	389	365	378	355	333	344	343	307	326
9	639	636	637	442	387	411	333	310	321	319	292	305
10	640	631	635	543	442	499	310	278	294	296	288	291
11	735	640	654	555	445	520	278	266	273	288	273	281
12	820	666	731	445	362	393	276	255	268	283	271	276
13	678	666	672	363	353	358	297	265	275	312	270	283
14	735	673	685	356	350	353	350	297	332	361	296	312
15	828	735	804	351	322	338	339	315	327	434	361	393
16	807	737	768	322	317	319	384	315	342	431	393	413
17	756	747	752	322	316	320	422	384	412	418	358	377
18	825	725	788	331	317	323	414	332	375	388	354	369
19	725	468	574	327	283	307	352	327	333	389	357	371
20	468	458	463	283	274	277	447	352	399	383	366	371
21	461	383	442	335	279	298	486	391	424	366	338	352
22	443	371	402	416	335	389	391	358	372	339	323	330
23	428	399	415	394	328	358	370	356	362	328	321	325
24	429	374	406	331	311	319	424	348	380	339	313	331
25	478	425	448	320	315	318	412	354	378	345	307	322
26	437	390	403	318	307	314	438	402	416	352	311	330
27	413	390	405	308	291	301	454	386	421	393	351	369
28	583	413	493	292	285	288	407	364	378	395	374	385
29	---	---	---	287	284	286	415	377	399	422	370	389
30	---	---	---	297	285	290	380	330	357	374	352	362
31	---	---	---	323	293	304	---	---	---	357	324	340
Month	828	371	609	709	274	375	575	255	365	477	270	343

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			September	
1	368	325	343	686	567	593	756	706	725	557	533	542
2	342	321	331	780	666	736	748	732	740	573	553	566
3	330	315	321	668	631	639	780	740	754	571	557	563
4	326	315	319	673	611	639	792	777	786	583	564	574
5	326	316	323	673	647	659	810	779	800	683	570	631
6	331	315	322	699	641	660	811	781	798	695	653	673
7	329	319	323	721	672	692	782	722	754	739	669	716
8	345	324	335	747	687	720	727	681	697	728	692	711
9	396	345	373	762	726	745	784	700	728	721	686	705
10	451	392	424	758	708	725	740	707	720	714	653	666
11	504	449	480	722	694	702	738	704	722	687	625	642
12	572	504	543	722	678	693	721	643	671	692	596	632
13	597	570	582	739	688	705	724	669	702	604	583	596
14	617	590	603	757	705	719	705	649	662	595	572	581
15	623	592	603	761	697	724	823	651	695	609	554	581
16	608	592	600	722	685	706	738	488	604	584	555	570
17	726	602	637	718	681	701	489	434	457	633	584	612
18	720	633	651	704	682	694	446	428	436	667	629	654
19	643	635	639	704	682	695	495	443	468	661	589	611
20	646	634	640	708	672	693	531	490	518	594	563	574
21	643	630	636	677	629	653	538	517	525	591	570	579
22	635	617	625	655	643	648	588	537	557	602	589	595
23	648	619	630	670	651	660	606	579	587	598	587	593
24	631	539	587	669	645	662	606	578	589	596	574	584
25	543	498	519	717	667	696	586	570	579	601	577	587
26	543	503	515	722	696	714	730	569	624	644	588	627
27	541	499	512	729	689	714	726	612	650	673	604	640
28	529	509	517	735	694	718	693	580	612	625	607	616
29	545	528	537	734	708	720	580	540	561	661	610	637
30	567	540	554	719	656	681	546	517	527	734	644	675
31	---	---	---	711	676	688	538	517	527	---	---	---
Month	726	315	501	780	567	690	823	428	638	739	533	618

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

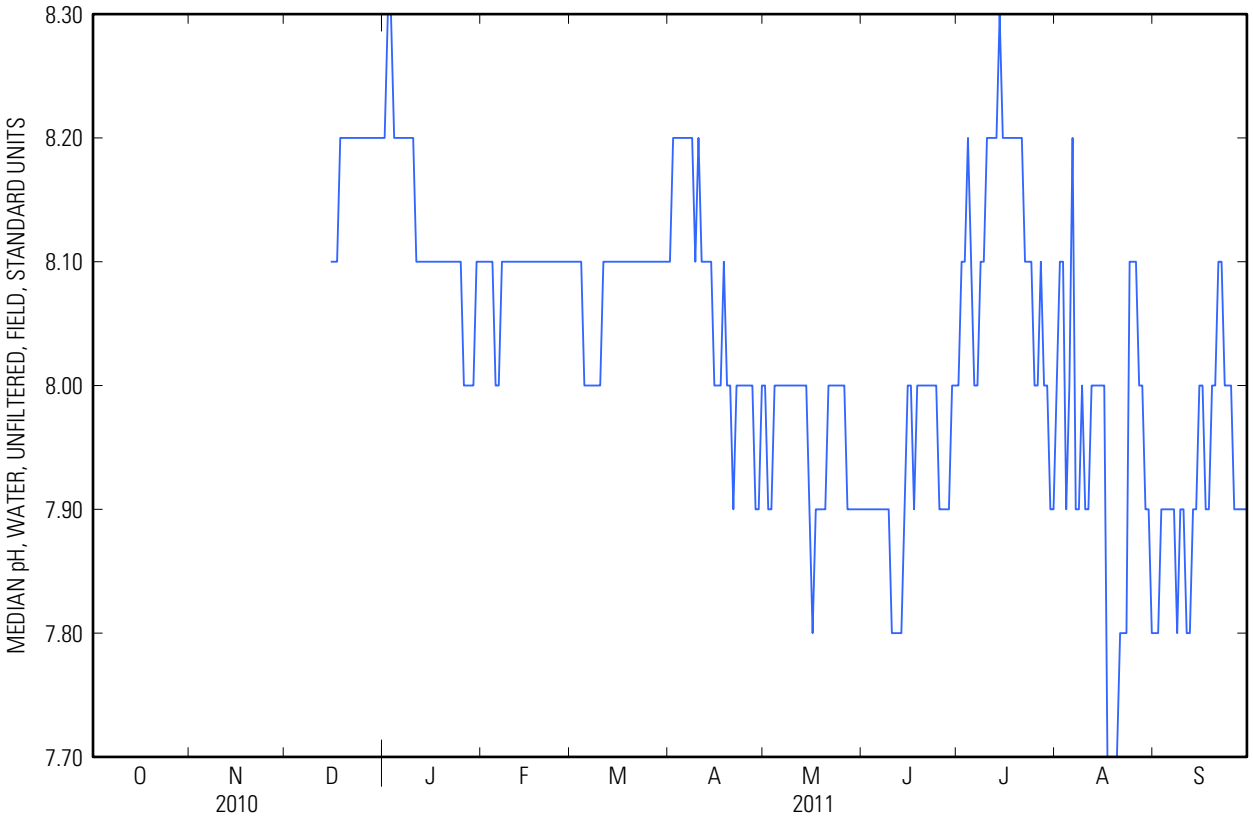


04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

pH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEDIAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	---	---	8.2	8.1	8.1	8.1	8.0	7.9	8.0	8.0	7.8
2	---	---	---	8.3	8.1	8.1	8.2	7.9	7.9	8.1	8.1	7.8
3	---	---	---	8.3	8.1	8.1	8.2	7.9	7.9	8.1	8.1	7.9
4	---	---	---	8.2	8.1	8.1	8.2	8.0	7.9	8.2	7.9	7.9
5	---	---	---	8.2	8.0	8.0	8.2	8.0	7.9	8.1	8.0	7.9
6	---	---	---	8.2	8.0	8.0	8.2	8.0	7.9	8.0	8.2	7.9
7	---	---	---	8.2	8.1	8.0	8.2	8.0	7.9	8.0	7.9	7.9
8	---	---	---	8.2	8.1	8.0	8.2	8.0	7.9	8.1	7.9	7.8
9	---	---	---	8.2	8.1	8.0	8.1	8.0	7.9	8.1	8.0	7.9
10	---	---	---	8.2	8.1	8.0	8.2	8.0	7.8	8.2	7.9	7.9
11	---	---	---	8.1	8.1	8.1	8.1	8.0	7.8	8.2	7.9	7.8
12	---	---	---	8.1	8.1	8.1	8.1	8.0	7.8	8.2	8.0	7.8
13	---	---	---	8.1	8.1	8.1	8.1	8.0	7.8	8.2	8.0	7.9
14	---	---	---	8.1	8.1	8.1	8.1	8.0	7.9	8.3	8.0	7.9
15	---	---	8.1	8.1	8.1	8.1	8.0	7.9	8.0	8.2	8.0	8.0
16	---	---	8.1	8.1	8.1	8.1	8.0	7.8	8.0	8.2	8.0	8.0
17	---	---	8.1	8.1	8.1	8.1	8.0	7.9	7.9	8.2	7.7	7.9
18	---	---	8.2	8.1	8.1	8.1	8.1	7.9	8.0	8.2	7.7	7.9
19	---	---	8.2	8.1	8.1	8.1	8.0	7.9	8.0	8.2	7.7	8.0
20	---	---	8.2	8.1	8.1	8.1	8.0	7.9	8.0	8.2	7.7	8.0
21	---	---	8.2	8.1	8.1	8.1	7.9	8.0	8.0	8.2	7.8	8.1
22	---	---	8.2	8.1	8.1	8.1	8.0	8.0	8.0	8.1	7.8	8.1
23	---	---	8.2	8.1	8.1	8.1	8.0	8.0	8.0	8.1	7.8	8.0
24	---	---	8.2	8.1	8.1	8.1	8.0	8.0	8.0	8.1	8.1	8.0
25	---	---	8.2	8.1	8.1	8.1	8.0	8.0	7.9	8.0	8.1	8.0
26	---	---	8.2	8.0	8.1	8.1	8.0	8.0	7.9	8.0	8.1	7.9
27	---	---	8.2	8.0	8.1	8.1	8.0	7.9	7.9	8.1	8.0	7.9
28	---	---	8.2	8.0	8.1	8.1	7.9	7.9	7.9	8.0	8.0	7.9
29	---	---	8.2	8.0	---	8.1	7.9	7.9	8.0	8.0	7.9	7.9
30	---	---	8.2	8.1	---	8.1	8.0	7.9	8.0	7.9	7.9	7.9
31	---	---	8.2	8.1	---	8.1	---	7.9	---	7.9	7.8	---
Max	---	---	---	8.3	8.1	8.1	8.2	8.0	8.0	8.3	8.2	8.1
Min	---	---	---	8.0	8.0	8.0	7.9	7.8	7.8	7.9	7.7	7.8
Med	---	---	---	8.1	8.1	8.1	8.1	8.0	7.9	8.1	8.0	7.9

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued



04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		October			November			December			January	
1	---	---	---	---	---	---	---	---	---	13.3	13.0	13.1
2	---	---	---	---	---	---	---	---	---	13.4	12.9	13.1
3	---	---	---	---	---	---	---	---	---	13.8	13.4	13.6
4	---	---	---	---	---	---	---	---	---	13.8	13.7	13.8
5	---	---	---	---	---	---	---	---	---	13.7	13.5	13.6
6	---	---	---	---	---	---	---	---	---	13.7	13.4	13.6
7	---	---	---	---	---	---	---	---	---	13.7	13.4	13.6
8	---	---	---	---	---	---	---	---	---	13.8	13.5	13.6
9	---	---	---	---	---	---	---	---	---	13.6	13.3	13.4
10	---	---	---	---	---	---	---	---	---	13.6	13.2	13.3
11	---	---	---	---	---	---	---	---	---	13.7	13.4	13.5
12	---	---	---	---	---	---	---	---	---	13.6	13.4	13.5
13	---	---	---	---	---	---	---	---	---	13.6	13.3	13.4
14	---	---	---	---	---	---	---	---	---	13.6	13.3	13.5
15	---	---	---	---	---	---	13.7	13.5	13.6	13.5	13.2	13.3
16	---	---	---	---	---	---	13.7	13.6	13.7	13.4	13.2	13.3
17	---	---	---	---	---	---	13.7	13.6	13.7	13.4	13.2	13.3
18	---	---	---	---	---	---	13.7	13.7	13.7	13.4	13.2	13.3
19	---	---	---	---	---	---	13.7	13.6	13.6	13.4	13.1	13.3
20	---	---	---	---	---	---	13.6	13.2	13.5	13.2	12.9	13.0
21	---	---	---	---	---	---	13.5	13.2	13.4	13.3	13.1	13.2
22	---	---	---	---	---	---	13.7	13.5	13.6	13.4	13.1	13.2
23	---	---	---	---	---	---	13.7	13.5	13.6	13.4	13.2	13.2
24	---	---	---	---	---	---	13.7	13.5	13.6	13.4	13.1	13.2
25	---	---	---	---	---	---	13.7	13.5	13.6	13.2	13.0	13.1
26	---	---	---	---	---	---	13.6	13.3	13.5	13.1	12.9	13.0
27	---	---	---	---	---	---	13.5	13.5	13.5	12.9	12.7	12.8
28	---	---	---	---	---	---	13.5	13.4	13.4	13.0	12.7	12.8
29	---	---	---	---	---	---	13.4	13.3	13.3	13.0	12.7	12.9
30	---	---	---	---	---	---	13.3	13.2	13.3	13.1	12.9	13.0
31	---	---	---	---	---	---	13.4	13.1	13.3	13.2	13.0	13.1
Month	---	---	---	---	---	---	---	---	---	13.8	12.7	13.3

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

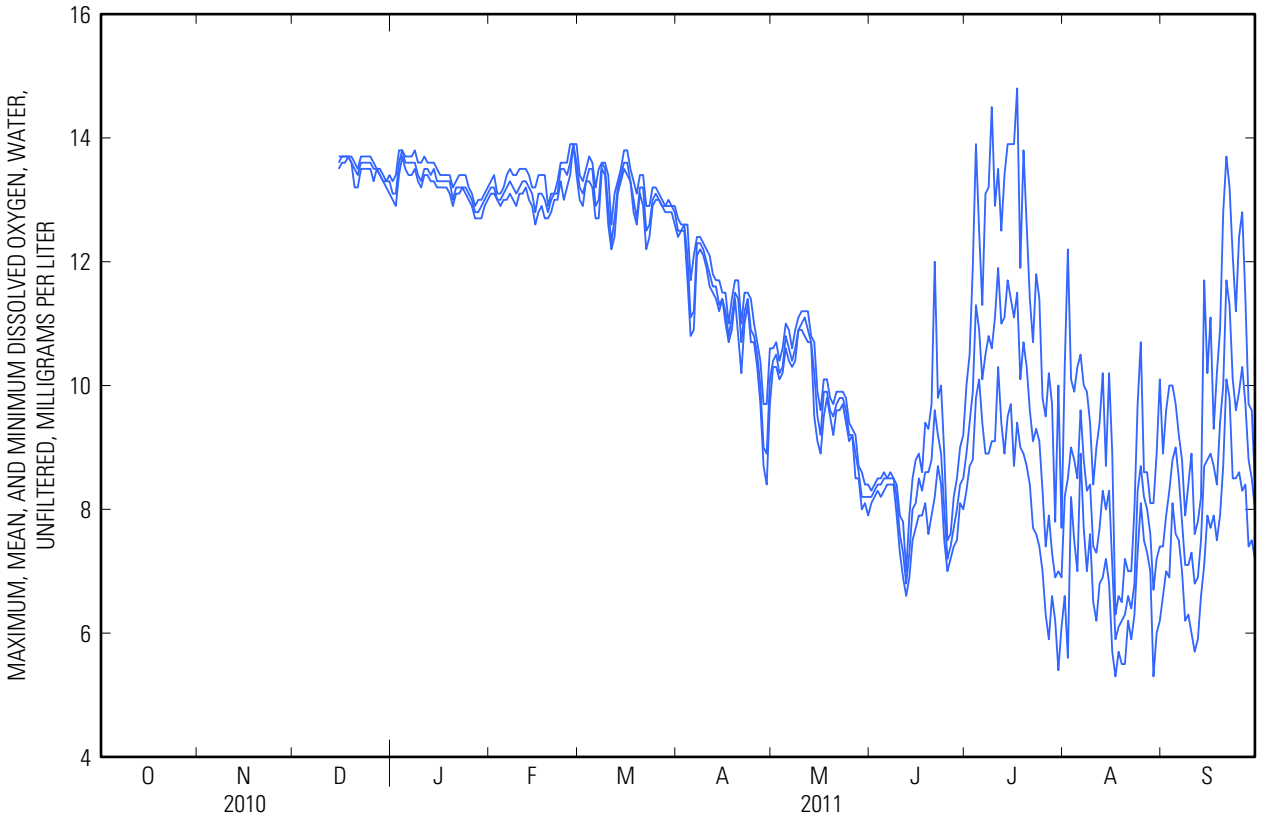
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February			March			April			May	
1	13.3	13.1	13.2	13.4	13.0	13.2	12.7	12.4	12.5	10.6	10.3	10.4
2	13.4	13.1	13.2	13.3	12.9	13.1	12.6	12.5	12.5	10.7	10.3	10.5
3	13.1	13.0	13.0	13.5	13.3	13.3	12.6	12.5	12.6	10.4	10.1	10.2
4	13.1	12.9	13.0	13.7	13.3	13.5	12.6	11.7	12.1	10.6	10.2	10.3
5	13.2	13.0	13.1	13.6	13.2	13.5	11.7	10.8	11.1	11.0	10.6	10.8
6	13.4	13.0	13.2	13.2	12.7	12.9	12.1	10.9	11.2	10.9	10.4	10.6
7	13.5	13.1	13.3	13.5	12.7	13.0	12.4	12.1	12.3	10.6	10.3	10.4
8	13.4	13.0	13.2	13.6	13.5	13.6	12.4	12.2	12.3	10.9	10.4	10.6
9	13.4	12.9	13.1	13.6	13.4	13.5	12.3	12.1	12.2	11.1	10.9	10.9
10	13.5	13.1	13.2	13.4	12.6	12.9	12.2	11.9	12.0	11.2	10.9	11.0
11	13.5	13.1	13.3	12.6	12.2	12.3	12.1	11.6	11.8	11.2	10.8	11.1
12	13.5	13.2	13.3	13.1	12.4	12.7	11.8	11.5	11.6	11.2	10.7	10.9
13	13.4	13.0	13.2	13.3	13.1	13.2	11.7	11.4	11.6	10.8	10.7	10.7
14	13.2	12.9	13.1	13.5	13.3	13.4	11.7	11.2	11.3	10.7	9.5	10.2
15	13.2	12.6	12.8	13.8	13.5	13.6	11.5	11.4	11.4	9.9	9.1	9.5
16	13.4	12.8	13.1	13.8	13.4	13.6	11.5	11.0	11.2	9.6	8.9	9.2
17	13.4	12.9	13.1	13.5	13.3	13.3	11.0	10.7	10.8	10.1	9.5	9.9
18	13.4	12.7	13.0	13.3	12.8	13.0	11.4	10.9	11.1	10.1	9.8	9.9
19	12.9	12.7	12.8	13.1	12.6	12.7	11.7	11.4	11.5	9.8	9.5	9.6
20	13.1	12.8	13.0	13.4	13.1	13.2	11.7	10.8	11.4	9.7	9.2	9.5
21	13.1	13.0	13.1	13.4	12.9	13.2	11.0	10.2	10.7	9.9	9.6	9.7
22	13.3	13.0	13.1	12.9	12.2	12.5	11.5	11.0	11.2	9.9	9.6	9.8
23	13.6	13.3	13.5	12.9	12.4	12.6	11.5	11.3	11.4	9.9	9.7	9.8
24	13.6	13.0	13.5	13.2	12.9	13.0	11.4	10.7	10.9	9.8	9.4	9.6
25	13.6	13.2	13.4	13.2	13.0	13.1	11.0	10.7	10.8	9.4	9.1	9.2
26	13.9	13.4	13.6	13.1	13.0	13.0	10.7	10.3	10.5	9.3	9.2	9.2
27	13.9	13.9	13.9	13.0	12.9	12.9	10.4	9.7	10.0	9.2	8.5	8.9
28	13.9	13.4	13.6	12.9	12.8	12.9	9.7	8.7	9.0	8.7	8.5	8.6
29	---	---	---	13.0	12.8	12.9	9.7	8.4	8.9	8.6	8.0	8.2
30	---	---	---	12.9	12.8	12.9	10.6	9.7	10.1	8.4	8.1	8.2
31	---	---	---	12.9	12.6	12.8	---	---	---	8.4	7.9	8.2
Month	13.9	12.6	13.2	13.8	12.2	13.1	12.7	8.4	11.3	11.2	7.9	9.9

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			September	
1	8.3	8.1	8.2	10.0	8.3	8.9	10.3	6.6	8.2	8.9	6.6	7.4
2	8.4	8.2	8.3	10.5	8.7	9.4	12.2	5.6	8.5	9.6	7.0	7.9
3	8.5	8.3	8.4	11.9	8.8	9.9	10.1	8.2	9.0	10.0	6.9	8.3
4	8.5	8.2	8.4	13.9	9.8	11.3	9.9	7.5	8.8	10.0	8.1	8.8
5	8.6	8.3	8.5	12.5	10.1	10.9	10.3	7.0	8.5	9.7	7.6	9.0
6	8.5	8.4	8.5	11.3	9.4	10.1	10.5	8.9	9.6	9.2	7.5	8.5
7	8.6	8.4	8.5	13.1	8.9	10.5	10.0	7.7	8.8	8.8	7.0	7.8
8	8.5	8.4	8.5	13.2	8.9	10.8	9.9	7.0	8.3	7.9	6.2	7.1
9	8.4	7.9	8.2	14.5	9.1	10.6	9.4	7.6	8.4	8.4	6.3	7.1
10	7.9	7.3	7.6	12.9	9.1	11.1	8.4	6.5	7.4	8.9	6.0	7.3
11	7.8	6.9	7.3	13.5	10.3	11.9	9.0	6.2	7.3	7.6	5.7	6.8
12	7.0	6.6	6.8	12.5	9.4	11.0	9.4	6.8	7.7	7.8	5.9	6.9
13	7.9	6.9	7.3	13.4	8.9	11.1	10.2	6.9	8.3	8.2	6.6	7.5
14	8.5	7.5	8.0	13.9	9.5	11.7	8.7	7.2	8.0	11.7	7.1	8.7
15	8.8	7.7	8.1	13.9	9.7	11.4	10.2	6.8	8.3	10.2	7.9	8.8
16	8.9	7.9	8.5	13.9	8.7	11.1	8.9	5.7	7.1	11.1	7.7	8.9
17	8.6	7.9	8.3	14.8	9.4	11.5	6.3	5.3	5.9	9.3	7.9	8.7
18	9.4	8.1	8.6	11.9	9.0	10.1	6.6	5.7	6.1	10.2	7.5	8.4
19	9.3	7.6	8.6	13.8	8.9	10.7	6.5	5.5	6.2	10.9	7.9	9.4
20	9.7	7.9	8.8	12.6	8.7	10.3	7.2	5.5	6.3	12.8	8.7	10.0
21	12.0	8.2	9.6	11.4	8.4	9.6	7.0	6.2	6.6	13.7	10.1	11.7
22	9.8	8.7	9.2	10.7	7.7	9.1	7.0	5.9	6.4	13.2	9.8	11.3
23	10.0	8.4	8.9	11.8	7.6	9.3	8.0	6.3	6.8	12.1	8.5	10.1
24	8.9	7.5	8.0	11.4	7.4	9.1	9.7	7.3	8.3	11.2	8.5	9.6
25	7.5	7.0	7.2	9.8	7.0	8.3	10.7	8.1	8.7	12.4	8.6	9.9
26	7.6	7.2	7.4	9.5	6.3	7.4	8.6	7.5	8.2	12.8	8.3	10.3
27	8.2	7.4	7.7	10.2	5.9	7.9	8.6	7.3	8.0	11.4	8.4	9.7
28	8.5	7.5	8.0	9.7	6.6	7.3	8.1	7.0	7.6	9.7	7.4	8.8
29	9.0	8.1	8.4	7.8	6.2	6.9	8.1	5.3	6.7	9.6	7.5	8.5
30	9.2	8.0	8.5	10.0	5.4	7.0	8.9	6.0	7.2	8.4	7.2	8.0
31	---	---	---	7.7	6.1	6.9	10.1	6.2	7.4	---	---	---
Month	12.0	6.6	8.2	14.8	5.4	9.8	12.2	5.3	7.7	13.7	5.7	8.7

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued



04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		October			November			December			January	
1	---	---	---	---	---	---	---	---	---	20	14	16
2	---	---	---	---	---	---	---	---	---	85	18	37
3	---	---	---	---	---	---	---	---	---	420	85	250
4	---	---	---	---	---	---	---	---	---	420	170	320
5	---	---	---	---	---	---	---	---	---	230	83	140
6	---	---	---	---	---	---	---	---	---	87	45	64
7	---	---	---	---	---	---	---	---	---	47	34	40
8	---	---	---	---	---	---	---	---	---	37	27	30
9	---	---	---	---	---	---	---	---	---	30	24	27
10	---	---	---	---	---	---	---	---	---	30	18	21
11	---	---	---	---	---	---	---	---	---	19	16	17
12	---	---	---	---	---	---	---	---	---	17	15	16
13	---	---	---	---	---	---	---	---	---	16	14	15
14	---	---	---	---	---	---	---	---	---	15	13	14
15	---	---	---	---	---	---	230	130	170	14	13	14
16	---	---	---	---	---	---	130	88	100	14	13	14
17	---	---	---	---	---	---	100	76	91	14	12	13
18	---	---	---	---	---	---	90	74	81	14	12	13
19	---	---	---	---	---	---	100	65	78	14	12	13
20	---	---	---	---	---	---	220	88	140	14	11	12
21	---	---	---	---	---	---	200	49	88	13	12	12
22	---	---	---	---	---	---	51	36	41	14	12	12
23	---	---	---	---	---	---	37	30	34	13	12	12
24	---	---	---	---	---	---	34	25	30	16	12	12
25	---	---	---	---	---	---	27	24	25	13	12	12
26	---	---	---	---	---	---	25	20	22	36	12	14
27	---	---	---	---	---	---	21	15	18	41	11	13
28	---	---	---	---	---	---	20	14	15	12	11	11
29	---	---	---	---	---	---	32	12	14	29	11	13
30	---	---	---	---	---	---	14	12	13	12	11	12
31	---	---	---	---	---	---	14	13	14	14	12	12
Month	---	---	---	---	---	---	---	---	---	420	11	39

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

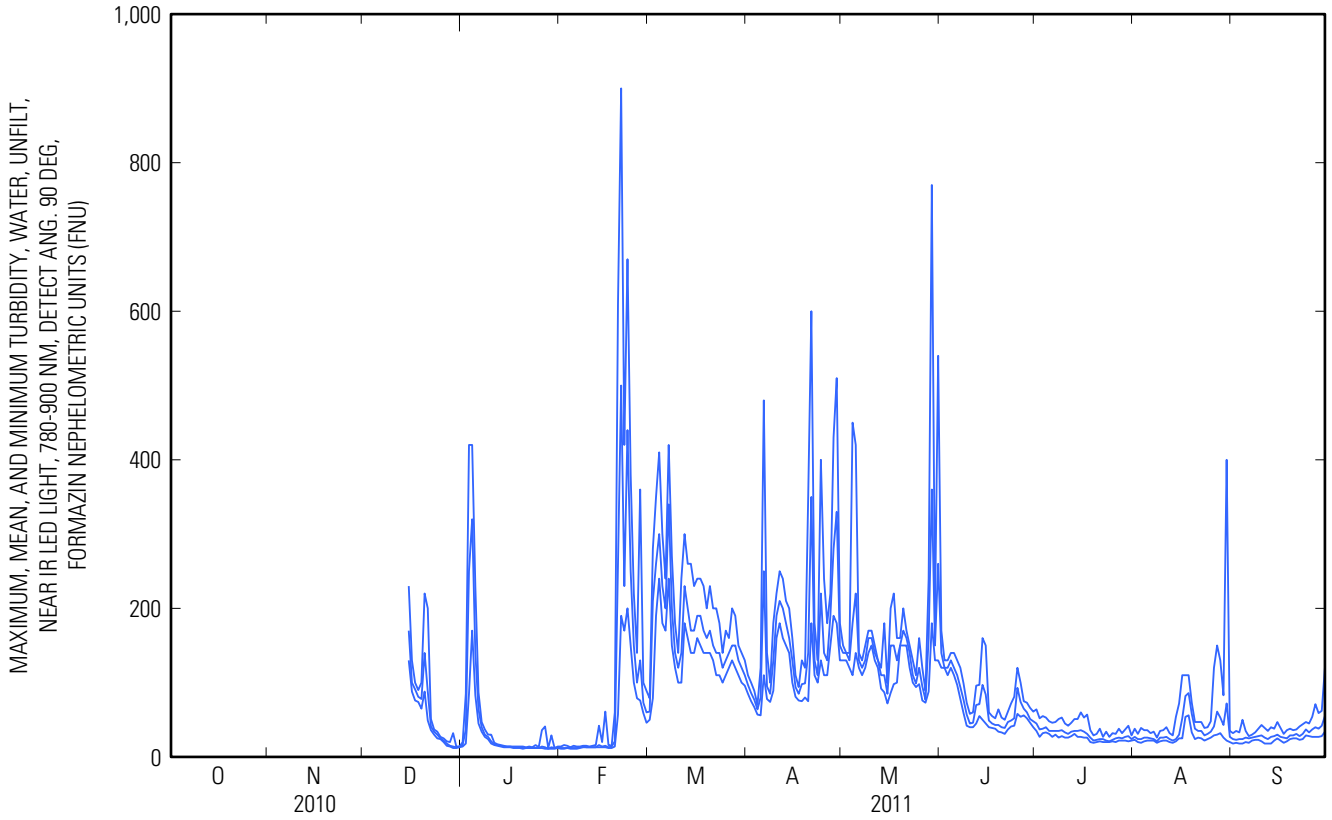
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February			March			April			May	
1	14	11	12	79	50	61	110	85	97	150	130	140
2	16	11	12	280	79	210	100	75	86	140	130	140
3	15	12	12	350	190	260	89	67	77	140	120	130
4	13	11	12	410	240	300	70	57	64	450	110	180
5	15	11	12	300	180	230	120	56	80	420	140	220
6	14	11	12	240	170	200	480	110	250	140	120	130
7	14	12	13	420	240	340	140	78	95	130	110	120
8	15	13	14	270	150	200	100	74	85	150	120	130
9	15	13	13	180	120	140	180	89	130	170	140	160
10	14	13	13	140	100	120	220	160	190	170	150	160
11	15	13	13	240	100	140	250	180	210	150	130	140
12	16	13	13	300	180	230	240	160	200	130	120	130
13	42	13	16	260	160	200	210	150	180	120	92	110
14	20	13	14	260	140	170	200	140	160	180	87	110
15	61	13	15	230	140	170	160	100	130	99	72	85
16	16	12	13	240	160	190	110	81	94	200	86	150
17	15	12	14	240	150	190	94	76	85	220	98	150
18	60	14	21	230	140	170	130	75	98	160	100	130
19	610	57	260	200	140	160	120	80	99	160	150	150
20	900	190	500	230	140	170	350	75	140	200	150	170
21	420	170	230	200	130	150	600	180	350	170	150	160
22	670	200	440	200	110	140	180	110	130	150	120	140
23	380	150	250	180	110	140	130	100	110	130	100	110
24	220	100	150	140	100	120	400	130	220	110	94	99
25	140	79	100	170	110	130	240	110	140	160	98	120
26	360	76	130	160	120	140	180	110	130	120	76	95
27	100	59	73	200	130	150	220	150	190	89	73	77
28	89	46	60	190	120	150	430	190	280	240	88	160
29	---	---	---	150	110	130	510	180	330	770	180	360
30	---	---	---	140	100	120	180	130	150	190	130	150
31	---	---	---	130	96	110	---	---	---	540	130	260
Month	900	11	87	420	50	170	600	56	150	770	72	150

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			September	
1	170	120	140	64	35	45	38	23	27	32	18	24
2	130	120	120	52	27	37	31	20	24	35	19	23
3	130	110	120	55	32	38	39	19	24	33	18	24
4	140	120	130	53	33	40	36	21	26	50	18	24
5	140	110	120	48	31	35	36	22	26	35	20	26
6	130	97	110	46	27	35	32	22	25	28	19	25
7	120	78	94	47	30	35	34	22	24	30	22	26
8	99	59	77	51	26	35	26	19	21	33	23	27
9	73	42	57	53	28	36	35	21	26	38	23	28
10	58	40	45	45	26	33	36	22	26	43	21	29
11	60	40	46	42	26	31	40	22	27	39	18	26
12	96	45	70	46	28	34	32	20	24	35	18	24
13	97	55	71	51	31	35	29	19	22	40	18	27
14	160	50	97	51	27	35	54	21	24	38	22	28
15	150	45	84	60	27	36	72	25	30	47	25	30
16	60	40	49	53	26	34	110	25	52	39	22	27
17	55	39	45	57	26	31	110	54	82	31	19	26
18	52	38	43	36	20	26	110	56	86	36	21	25
19	64	34	43	29	19	22	73	33	58	38	24	29
20	53	33	40	31	20	23	47	24	38	36	25	29
21	50	31	39	38	21	24	47	26	35	37	25	31
22	61	37	47	27	20	24	47	25	35	41	23	28
23	72	41	49	34	20	22	39	22	29	44	24	31
24	81	42	52	27	20	21	40	24	31	47	29	37
25	120	58	93	32	21	23	48	26	34	45	28	33
26	100	54	74	31	20	25	120	29	41	54	27	37
27	75	56	65	38	22	26	150	30	61	71	27	40
28	73	52	60	32	22	25	130	32	53	59	27	38
29	66	46	51	37	22	27	83	26	43	62	28	42
30	61	40	48	42	21	28	400	22	72	120	34	55
31	---	---	---	29	22	24	35	20	27	---	---	---
Month	170	31	73	64	19	30	400	19	37	120	18	30

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued



04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 1 of 15

[FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft, feet; ft3/s, cubic feet per second; ft³/s, cubic feet per second; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	Discharge, ft3/s (00060)	Discharge, instantaneous, ft³/s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	pH, water, unfiltered, field, standard units (00400)	pH, water, unfiltered, laboratory, standard units (00403)	Specific conductance, water, unfiltered, laboratory, µS/cm at 25 °C (90095)	Specific conductance, water, unfiltered, µS/cm at 25 °C (00095)	Temperature, water, °C (00010)
10-28-2010	**1420**	3,420	--	13.8	8.3	--	--	492	.2
10-28-2010	**1425**	3,420	--	13.8	8.3	--	--	492	.2
04-05-2011	**0820**	--	6,170	11.7	8.4	7.8	510	476	6.4
04-05-2011	**1640**	--	6,010	11.4	8.4	--	--	550	6.8
04-06-2011	**0850**	--	8,150	11.3	8.4	--	--	455	6.4
04-19-2011	**2045**	--	7,530	11.5	8.0	--	356	337	7.4
04-20-2011	**1300**	--	8,430	11.2	8.0	--	406	395	7.2
04-20-2011	**2245**	--	11,100	10.9	7.9	--	443	414	7.0
04-21-2011	**0645**	--	12,200	10.6	7.9	--	418	411	7.3
04-22-2011	**2115**	--	9,820	10.7	8.0	--	438	425	7.5
04-26-2011	**0925**	--	8,880	10.1	7.9	8.1	426	415	9.4
05-15-2011	**2015**	--	6,470	8.9	7.9	--	--	393	14.0
05-16-2011	**0800**	--	9,340	8.5	7.8	--	--	411	12.2
05-17-2011	**1245**	--	10,300	9.5	7.9	8.1	374	360	11.7
06-02-2011	**0720**	--	6,880	7.8	7.9	8.1	340	318	19.2
07-07-2011	**0800**	--	846	8.2	7.9	8.2	714	660	24.9
08-03-2011	**1020**	--	617	9.3	8.1	--	--	753	26.1
08-08-2011	**0945**	--	672	7.5	7.8	8.1	682	681	26.4

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 2 of 15

[FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft, feet; ft3/s, cubic feet per second; ft³/s, cubic feet per second; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	Turbidity, water, unfiltered, monochrome near infrared LED light, 780-900 nm, detection angle 90 +/- 2.5 degrees, FNU (63680)	Gage height, ft (00065)	alpha-HCH-d6, surrogate, Schedule OCSS, suspended sediment, percent recovery (99990)	Isodrin, surrogate, Schedule OCSS, suspended sediment, percent recovery (99991)	PCB congener 207, surrogate, Schedule OCSS, suspended sediment, percent recovery (99992)	Bisphenol A-d3, surrogate, Schedule 4433 and Labcode 8033 (WWWW), water, unfiltered, percent recovery (62839)	Caffeine-13C, surrogate, Schedule 4433 and Labcode 8033 (WWWW), water, unfiltered, percent recovery (62840)	Decafluorobiphenyl, surrogate, Schedule 4433 and Labcode 8033 (WWWW), water, unfiltered, percent recovery (62841)
10-28-2010	**1420**	71	--	95.3	78.6	74.8	--	--	--
10-28-2010	**1425**	71	--	83.8	71.9	66.8	--	--	--
04-05-2011	**0820**	73	12.56	--	--	--	--	--	--
04-05-2011	**1640**	190	12.40	--	--	--	--	--	--
04-06-2011	**0850**	320	12.54	--	--	--	--	--	--
04-19-2011	**2045**	86	12.61	--	--	--	--	--	--
04-20-2011	**1300**	130	12.75	--	--	--	--	--	--
04-20-2011	**2245**	250	13.04	--	--	--	--	--	--
04-21-2011	**0645**	320	11.91	--	--	--	--	--	--
04-22-2011	**2115**	320	11.98	--	--	--	--	--	--
04-26-2011	**0925**	110	12.79	--	--	--	--	--	--
05-15-2011	**2015**	70	11.85	--	--	--	--	--	--
05-16-2011	**0800**	110	11.26	--	--	--	--	--	--
05-17-2011	**1245**	130	11.05	--	--	--	--	--	--
06-02-2011	**0720**	100	11.65	--	--	--	--	--	--
07-07-2011	**0800**	22	12.62	--	--	--	--	--	--
08-03-2011	**1020**	23	12.89	--	--	--	103	92.3	64.6
08-08-2011	**0945**	23	12.76	--	--	--	--	--	--

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 3 of 15

[FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft, feet; ft3/s, cubic feet per second; ft^3/s, cubic feet per second; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	Fluor-anthene-d10, surrogate, Schedule 4433 and Labcode 8033 (WWWW), water, unfiltered, percent recovery (62842)	Sample volume, Schedule OCSS, suspended sediment, milliliters (99993)	Sample volume, Schedule 4433 and Labcode 8033 (WWWW), milliliters (99963)	Sampling method (82398)	Calcium, water, filtered, mg/L (00915)	Magne-sium, water, filtered, mg/L (00925)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)
10-28-2010	1420	--	21.9	--	Sediment core	--	--	--	--
10-28-2010	1425	--	22.1	--	Sediment core	--	--	--	--
04-05-2011	0820	--	--	--	EWI	57.6	13.3	50.3	.158
04-05-2011	1640	--	--	--	SS Pumping	--	--	60.4	--
04-06-2011	0850	--	--	--	SS Pumping	--	--	48.5	--
04-19-2011	2045	--	--	--	SS Pumping	--	--	30.4	--
04-20-2011	1300	--	--	--	SS Pumping	--	--	37.6	--
04-20-2011	2245	--	--	--	SS Pumping	--	--	38.5	--
04-21-2011	0645	--	--	--	SS Pumping	--	--	37.1	--
04-22-2011	2115	--	--	--	SS Pumping	--	--	40.9	--
04-26-2011	0925	--	--	--	EWI	48.8	11.5	35.3	.105
05-15-2011	2015	--	--	--	SS Pumping	--	--	32.9	--
05-16-2011	0800	--	--	--	SS Pumping	--	--	35.3	--
05-17-2011	1245	--	--	--	SS Pumping	44.9	10.7	--	--
06-02-2011	0720	--	--	--	SS Pumping	41.4	9.12	22.8	.121
07-07-2011	0800	--	--	--	SS Pumping	79.6	17.2	61.6	.169
08-03-2011	1020	97.8	--	936	EWI	--	--	--	--
08-08-2011	0945	--	--	--	EWI	77.6	17.7	59.4	.179

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 4 of 15

[FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft, feet; ft3/s, cubic feet per second; ft^3/s, cubic feet per second; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	Sulfate, water, filtered, mg/L (00945)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Nitrite, water, filtered, mg/L as N (00613)	Orthophos-phate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, unfiltered, analytically determined, mg/L (62855)	1,4-Dichloro-benzene, water, unfiltered, recover-able, µg/L (34571)
10-28-2010	1420	--	--	--	--	--	--	--	--
10-28-2010	1425	--	--	--	--	--	--	--	--
04-05-2011	0820	45.7	< .010	1.25	.0108	.00535	.136	1.76	--
04-05-2011	1640	--	.0477	1.21	.0124	.0107	.128	1.91	--
04-06-2011	0850	--	.0310	1.16	.0124	.0118	.388	2.12	--
04-19-2011	2045	--	.0237	.883	.00609	.00795	.0885	1.27	--
04-20-2011	1300	--	.0343	.857	.00633	.0118	.192	1.48	--
04-20-2011	2245	--	.0248	1.03	.00843	.0222	.645	2.50	--
04-21-2011	0645	--	.0402	1.02	.00926	.0258	.504	2.23	--
04-22-2011	2115	--	.0447	1.04	.00794	.0182	.325	2.18	--
04-26-2011	0925	32.4	.0185	.973	.0104	.0164	.193	1.57	--
05-15-2011	2015	--	.0471	.930	.0129	.0108	.116	1.42	--
05-16-2011	0800	--	.0505	.870	.0134	.0189	.187	1.80	--
05-17-2011	1245	--	.0559	.974	.0139	.0256	.194	1.78	--
06-02-2011	0720	30.1	.0273	.764	.0147	.0204	.134	1.23	--
07-07-2011	0800	94.9	.0583	.812	.0418	.00729	.0597	1.31	--
08-03-2011	1020	--	--	--	--	--	--	--	< .08
08-08-2011	0945	111	.0638	.470	.0125	< .004	.0391	.881	--

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 5 of 15

[FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft, feet; ft3/s, cubic feet per second; ft³/s, cubic feet per second; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	Aldrin, suspended sediment, recoverable, µg/L (39332)	alpha-Endosulfan, suspended sediment, recoverable, µg/L (34363)	alpha-HCH, suspended sediment, recoverable, µg/L (34254)	Atrazine, water, unfiltered, recoverable, µg/L (39630)	beta-HCH, suspended sediment, recoverable, µg/L (34256)	Bromacil, water, unfiltered, recoverable, µg/L (30234)	Camphor, water, unfiltered, recoverable, µg/L (62817)	Carbaryl, water, unfiltered, recoverable, µg/L (39750)	Carbazole, water, unfiltered, recoverable, µg/L (77571)
10-28-2010	1420	< 2.0	< .5	< 1.5	--	< .5	--	--	--	--
10-28-2010	1425	< 2.0	< .5	< 1.5	--	< .5	--	--	--	--
04-05-2011	0820	--	--	--	--	--	--	--	--	--
04-05-2011	1640	--	--	--	--	--	--	--	--	--
04-06-2011	0850	--	--	--	--	--	--	--	--	--
04-19-2011	2045	--	--	--	--	--	--	--	--	--
04-20-2011	1300	--	--	--	--	--	--	--	--	--
04-20-2011	2245	--	--	--	--	--	--	--	--	--
04-21-2011	0645	--	--	--	--	--	--	--	--	--
04-22-2011	2115	--	--	--	--	--	--	--	--	--
04-26-2011	0925	--	--	--	--	--	--	--	--	--
05-15-2011	2015	--	--	--	--	--	--	--	--	--
05-16-2011	0800	--	--	--	--	--	--	--	--	--
05-17-2011	1245	--	--	--	--	--	--	--	--	--
06-02-2011	0720	--	--	--	--	--	--	--	--	--
07-07-2011	0800	--	--	--	--	--	--	--	--	--
08-03-2011	1020	--	--	--	.064	--	< .16	.018	< .06	< .02
08-08-2011	0945	--	--	--	--	--	--	--	--	--

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 6 of 15

[FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft, feet; ft3/s, cubic feet per second; ft³/s, cubic feet per second; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	Chlor-pyrifos, water, unfiltered, recover-able, µg/L (38932)	cis-Chlor-dane, suspended sediment, recover-able, µg/L (62956)	DEET, water, unfiltered, recover-able, µg/L (61947)	Diazinon, water, unfiltered, recover-able, µg/L (39570)	Dichlor-vos, water, unfiltered, recover-able, µg/L (30218)	Dieldrin, suspended sediment, recover-able, µg/L (39382)	Endrin, suspended sediment, recover-able, µg/L (39392)	Heptachlor epoxide, suspended sediment, recover-able, µg/L (39422)	Heptachlor, suspended sediment, recover-able, µg/L (39412)
10-28-2010	1420	--	< 1.0	--	--	--	.46	< 1.0	< 1.5	< 1.0
10-28-2010	1425	--	< 1.0	--	--	--	< .5	< 1.0	< 1.5	< 1.0
04-05-2011	0820	--	--	--	--	--	--	--	--	--
04-05-2011	1640	--	--	--	--	--	--	--	--	--
04-06-2011	0850	--	--	--	--	--	--	--	--	--
04-19-2011	2045	--	--	--	--	--	--	--	--	--
04-20-2011	1300	--	--	--	--	--	--	--	--	--
04-20-2011	2245	--	--	--	--	--	--	--	--	--
04-21-2011	0645	--	--	--	--	--	--	--	--	--
04-22-2011	2115	--	--	--	--	--	--	--	--	--
04-26-2011	0925	--	--	--	--	--	--	--	--	--
05-15-2011	2015	--	--	--	--	--	--	--	--	--
05-16-2011	0800	--	--	--	--	--	--	--	--	--
05-17-2011	1245	--	--	--	--	--	--	--	--	--
06-02-2011	0720	--	--	--	--	--	--	--	--	--
07-07-2011	0800	--	--	--	--	--	--	--	--	--
08-03-2011	1020	< .32	--	.092	< .32	< .08	--	--	--	--
08-08-2011	0945	--	--	--	--	--	--	--	--	--

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 7 of 15

[FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft, feet; ft3/s, cubic feet per second; ft³/s, cubic feet per second; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	Hexa-chloro-benzene, suspended sediment, recover-able, µg/L (34402)	Lindane, suspended sediment, recover-able, µg/L (39342)	Metalaxyl, water, unfiltered, recover-able, µg/L (04254)	Metola-chlor, water, unfiltered, recover-able, µg/L (82612)	Mirex, suspended sediment, recover-able, µg/L (39757)	p,p'-DDD, suspended sediment, recover-able, µg/L (39362)	p,p'-DDE, suspended sediment, recover-able, µg/L (39367)	p,p'-DDT, suspended sediment, recover-able, µg/L (39372)	p,p'-Methoxy-chlor, suspended sediment, recover-able, µg/L (82351)
10-28-2010	1420	< 3.0	< .5	--	--	< 1.5	< 2.5	< 1.5	< 1.0	< 3.5
10-28-2010	1425	< 3.0	< .5	--	--	< 1.5	< 2.5	< 1.5	< 1.0	< 3.5
04-05-2011	0820	--	--	--	--	--	--	--	--	--
04-05-2011	1640	--	--	--	--	--	--	--	--	--
04-06-2011	0850	--	--	--	--	--	--	--	--	--
04-19-2011	2045	--	--	--	--	--	--	--	--	--
04-20-2011	1300	--	--	--	--	--	--	--	--	--
04-20-2011	2245	--	--	--	--	--	--	--	--	--
04-21-2011	0645	--	--	--	--	--	--	--	--	--
04-22-2011	2115	--	--	--	--	--	--	--	--	--
04-26-2011	0925	--	--	--	--	--	--	--	--	--
05-15-2011	2015	--	--	--	--	--	--	--	--	--
05-16-2011	0800	--	--	--	--	--	--	--	--	--
05-17-2011	1245	--	--	--	--	--	--	--	--	--
06-02-2011	0720	--	--	--	--	--	--	--	--	--
07-07-2011	0800	--	--	--	--	--	--	--	--	--
08-03-2011	1020	--	--	< .16	.026	--	--	--	--	--
08-08-2011	0945	--	--	--	--	--	--	--	--	--

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 8 of 15

[FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft, feet; ft3/s, cubic feet per second; ft³/s, cubic feet per second; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	p-Cresol, water, unfiltered, recoverable, µg/L (77146)	Pentachlorophenol, water, unfiltered, recoverable, µg/L (39032)	Prometon, water, unfiltered, recoverable, µg/L (39056)	Toxaphene, suspended sediment, recoverable, µg/L (39402)	trans-Chlordane, suspended sediment, recoverable, µg/L (62957)	trans-Nonachlor, suspended sediment, recoverable, µg/L (62958)	Aroclor 1016 plus Aroclor 1242, suspended sediment, recoverable, µg/L (62959)	Aroclor 1254, suspended sediment, recoverable, µg/L (39506)	Aroclor 1260, suspended sediment, recoverable, µg/L (39510)
10-28-2010	1420	--	--	--	< 200	< .5	< 1.0	< 5	3.9	< 5
10-28-2010	1425	--	--	--	< 200	< .5	< 1.0	< 5	4.8	< 5
04-05-2011	0820	--	--	--	--	--	--	--	--	--
04-05-2011	1640	--	--	--	--	--	--	--	--	--
04-06-2011	0850	--	--	--	--	--	--	--	--	--
04-19-2011	2045	--	--	--	--	--	--	--	--	--
04-20-2011	1300	--	--	--	--	--	--	--	--	--
04-20-2011	2245	--	--	--	--	--	--	--	--	--
04-21-2011	0645	--	--	--	--	--	--	--	--	--
04-22-2011	2115	--	--	--	--	--	--	--	--	--
04-26-2011	0925	--	--	--	--	--	--	--	--	--
05-15-2011	2015	--	--	--	--	--	--	--	--	--
05-16-2011	0800	--	--	--	--	--	--	--	--	--
05-17-2011	1245	--	--	--	--	--	--	--	--	--
06-02-2011	0720	--	--	--	--	--	--	--	--	--
07-07-2011	0800	--	--	--	--	--	--	--	--	--
08-03-2011	1020	< .08	< 1.60	< .16	--	--	--	--	--	--
08-08-2011	0945	--	--	--	--	--	--	--	--	--

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 9 of 15

[FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft, feet; ft3/s, cubic feet per second; ft^3/s, cubic feet per second; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	1-Methyl-naphtha-lene, water, unfiltered, recover-able, µg/L (81696)	2,6-Di-methyl-naphtha-lene, water, unfiltered, recover-able, µg/L (62805)	2-Methyl-naphtha-lene, water, unfiltered, recover-able, µg/L (30194)	3,4-Di-chloro-phenyl iso-cyanate, water, unfiltered, recover-able, µg/L (63145)	3-beta-Co-prostanol, water, unfiltered, recover-able, µg/L (62806)	3-Methyl-1H-indole, water, unfiltered, recover-able, µg/L (62807)	3-tert-Butyl-4-hydroxy-anisole, water, unfiltered, recover-able, µg/L (61702)	4-Cumyl-phenol, water, unfiltered, recover-able, µg/L (62808)	4-n-Octyl-phenol, water, unfiltered, recover-able, µg/L (62809)
10-28-2010	1420	--	--	--	--	--	--	--	--	--
10-28-2010	1425	--	--	--	--	--	--	--	--	--
04-05-2011	0820	--	--	--	--	--	--	--	--	--
04-05-2011	1640	--	--	--	--	--	--	--	--	--
04-06-2011	0850	--	--	--	--	--	--	--	--	--
04-19-2011	2045	--	--	--	--	--	--	--	--	--
04-20-2011	1300	--	--	--	--	--	--	--	--	--
04-20-2011	2245	--	--	--	--	--	--	--	--	--
04-21-2011	0645	--	--	--	--	--	--	--	--	--
04-22-2011	2115	--	--	--	--	--	--	--	--	--
04-26-2011	0925	--	--	--	--	--	--	--	--	--
05-15-2011	2015	--	--	--	--	--	--	--	--	--
05-16-2011	0800	--	--	--	--	--	--	--	--	--
05-17-2011	1245	--	--	--	--	--	--	--	--	--
06-02-2011	0720	--	--	--	--	--	--	--	--	--
07-07-2011	0800	--	--	--	--	--	--	--	--	--
08-03-2011	1020	< .04	< .04	< .04	< .32	< 1.6	< .04	< .16	< .04	< .02
08-08-2011	0945	--	--	--	--	--	--	--	--	--

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 10 of 15

[FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft, feet; ft3/s, cubic feet per second; ft^3/s, cubic feet per second; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	4-Nonyl-phenol (sum of all isomers), water, unfiltered, recover-able, µg/L (62829)	4-Nonyl-phenol di-ethoxylate (sum of all isomers), water, unfiltered, recover-able, µg/L (61703)	4-Nonyl-phenol mono-ethoxylate (sum of all isomers), water, unfiltered, recover-able, µg/L (61704)	4-tert-Octyl-phenol di-ethoxylate, water, unfiltered, recover-able, µg/L (62486)	4-tert-Octyl-phenol mono-ethoxylate, water, unfiltered, recover-able, µg/L (62485)	4-tert-Octyl-phenol, water, unfiltered, recover-able, µg/L (62810)	5-Methyl-1H-benzo-triazole, water, unfiltered, recover-able, µg/L (61944)	9,10-Anthra-quinone, water, unfiltered, xxx (62813)	Aceto-phenone, water, unfiltered, recover-able, µg/L (62811)
10-28-2010	1420	--	--	--	--	--	--	--	--	--
10-28-2010	1425	--	--	--	--	--	--	--	--	--
04-05-2011	0820	--	--	--	--	--	--	--	--	--
04-05-2011	1640	--	--	--	--	--	--	--	--	--
04-06-2011	0850	--	--	--	--	--	--	--	--	--
04-19-2011	2045	--	--	--	--	--	--	--	--	--
04-20-2011	1300	--	--	--	--	--	--	--	--	--
04-20-2011	2245	--	--	--	--	--	--	--	--	--
04-21-2011	0645	--	--	--	--	--	--	--	--	--
04-22-2011	2115	--	--	--	--	--	--	--	--	--
04-26-2011	0925	--	--	--	--	--	--	--	--	--
05-15-2011	2015	--	--	--	--	--	--	--	--	--
05-16-2011	0800	--	--	--	--	--	--	--	--	--
05-17-2011	1245	--	--	--	--	--	--	--	--	--
06-02-2011	0720	--	--	--	--	--	--	--	--	--
07-07-2011	0800	--	--	--	--	--	--	--	--	--
08-03-2011	1020	< 1.6	< 1.60	< 1.6	< .20	< .60	< .4	< .32	E .021	< .4
08-08-2011	0945	--	--	--	--	--	--	--	--	--

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 11 of 15

[FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft, feet; ft3/s, cubic feet per second; ft³/s, cubic feet per second; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	Acetyl hexa-methyl tetrahydro naph-thalene, water, unfiltered, recover-able, µg/L (62812)	Anthra-cene, water, unfiltered, recover-able, µg/L (34220)	BDE congener 47, water, unfiltered, recover-able, µg/L (63147)	Benzo[a]-pyrene, water, unfiltered, recover-able, µg/L (34247)	Benzo-phenone, water, unfiltered, recover-able, µg/L (62814)	beta-Sitos-terol, water, unfiltered, recover-able, µg/L (62815)	beta-Stig-mastanol, water, unfiltered, recover-able, µg/L (61948)	Bis(2-ethylhexyl) phthalate, water, unfiltered, recover-able, µg/L (39100)	Bisphenol A, water, unfiltered, recover-able, µg/L (62816)
10-28-2010	1420	--	--	--	--	--	--	--	--	--
10-28-2010	1425	--	--	--	--	--	--	--	--	--
04-05-2011	0820	--	--	--	--	--	--	--	--	--
04-05-2011	1640	--	--	--	--	--	--	--	--	--
04-06-2011	0850	--	--	--	--	--	--	--	--	--
04-19-2011	2045	--	--	--	--	--	--	--	--	--
04-20-2011	1300	--	--	--	--	--	--	--	--	--
04-20-2011	2245	--	--	--	--	--	--	--	--	--
04-21-2011	0645	--	--	--	--	--	--	--	--	--
04-22-2011	2115	--	--	--	--	--	--	--	--	--
04-26-2011	0925	--	--	--	--	--	--	--	--	--
05-15-2011	2015	--	--	--	--	--	--	--	--	--
05-16-2011	0800	--	--	--	--	--	--	--	--	--
05-17-2011	1245	--	--	--	--	--	--	--	--	--
06-02-2011	0720	--	--	--	--	--	--	--	--	--
07-07-2011	0800	--	--	--	--	--	--	--	--	--
08-03-2011	1020	< .04	< .02	< .04	< .02	< .08	< 1.6	< 1.60	< 2	.018
08-08-2011	0945	--	--	--	--	--	--	--	--	--

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 12 of 15

[FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft, feet; ft3/s, cubic feet per second; ft^3/s, cubic feet per second; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	Caffeine, water, unfiltered, recoverable, µg/L (81436)	Cholesterol, water, unfiltered, recoverable, µg/L (62818)	Cotinine, water, unfiltered, recoverable, µg/L (61945)	Diethyl phthalate, water, unfiltered, recoverable, µg/L (34336)	D-Limonene, water, unfiltered, recoverable, µg/L (62819)	Fluoranthene, water, unfiltered, recoverable, µg/L (34376)	Hexahydrohexamethyl cyclopentabenzopyran, water, unfiltered, recoverable, µg/L (62823)	Indole, water, unfiltered, recoverable, µg/L (62824)	Isoborneol, water, unfiltered, recoverable, µg/L (62825)
10-28-2010	1420	--	--	--	--	--	--	--	--	--
10-28-2010	1425	--	--	--	--	--	--	--	--	--
04-05-2011	0820	--	--	--	--	--	--	--	--	--
04-05-2011	1640	--	--	--	--	--	--	--	--	--
04-06-2011	0850	--	--	--	--	--	--	--	--	--
04-19-2011	2045	--	--	--	--	--	--	--	--	--
04-20-2011	1300	--	--	--	--	--	--	--	--	--
04-20-2011	2245	--	--	--	--	--	--	--	--	--
04-21-2011	0645	--	--	--	--	--	--	--	--	--
04-22-2011	2115	--	--	--	--	--	--	--	--	--
04-26-2011	0925	--	--	--	--	--	--	--	--	--
05-15-2011	2015	--	--	--	--	--	--	--	--	--
05-16-2011	0800	--	--	--	--	--	--	--	--	--
05-17-2011	1245	--	--	--	--	--	--	--	--	--
06-02-2011	0720	--	--	--	--	--	--	--	--	--
07-07-2011	0800	--	--	--	--	--	--	--	--	--
08-03-2011	1020	.120	E .75	< .08	< .4	< .16	.015	E .016	< .04	< .08
08-08-2011	0945	--	--	--	--	--	--	--	--	--

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 13 of 15

[FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft, feet; ft3/s, cubic feet per second; ft³/s, cubic feet per second; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	Isophorone, water, unfiltered, recoverable, µg/L (34408)	Isopropylbenzene, water, unfiltered, recoverable, µg/L (77223)	Isoquinoline, water, unfiltered, recoverable, µg/L (62826)	Menthol, water, unfiltered, recoverable, µg/L (62827)	Methyl salicylate, water, unfiltered, recoverable, µg/L (62828)	Naphthalene, water, unfiltered, recoverable, µg/L (34696)	Phenanthrene, water, unfiltered, recoverable, µg/L (34461)	Phenol, water, unfiltered, recoverable, µg/L (34694)	Pyrene, water, unfiltered, recoverable, µg/L (34469)
10-28-2010	1420	--	--	--	--	--	--	--	--	--
10-28-2010	1425	--	--	--	--	--	--	--	--	--
04-05-2011	0820	--	--	--	--	--	--	--	--	--
04-05-2011	1640	--	--	--	--	--	--	--	--	--
04-06-2011	0850	--	--	--	--	--	--	--	--	--
04-19-2011	2045	--	--	--	--	--	--	--	--	--
04-20-2011	1300	--	--	--	--	--	--	--	--	--
04-20-2011	2245	--	--	--	--	--	--	--	--	--
04-21-2011	0645	--	--	--	--	--	--	--	--	--
04-22-2011	2115	--	--	--	--	--	--	--	--	--
04-26-2011	0925	--	--	--	--	--	--	--	--	--
05-15-2011	2015	--	--	--	--	--	--	--	--	--
05-16-2011	0800	--	--	--	--	--	--	--	--	--
05-17-2011	1245	--	--	--	--	--	--	--	--	--
06-02-2011	0720	--	--	--	--	--	--	--	--	--
07-07-2011	0800	--	--	--	--	--	--	--	--	--
08-03-2011	1020	< .04	< .04	< .04	< .32	< .08	< .02	< .02	E .064	.011
08-08-2011	0945	--	--	--	--	--	--	--	--	--

04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 14 of 15

[FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft, feet; ft3/s, cubic feet per second; ft^3/s, cubic feet per second; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	Tetra-chloro-ethene, water, unfiltered, recover-able, µg/L (34475)	Tribromo-methane, water, unfiltered, recover-able, µg/L (32104)	Tributyl phosphate, water, unfiltered, recover-able, µg/L (62832)	Triclosan, water, unfiltered, recover-able, µg/L (61708)	Triethyl citrate, water, unfiltered, recover-able, µg/L (62833)	Triphenyl phosphate, water, unfiltered, recover-able, µg/L (62834)	Tris(2-butoxy-ethyl) phosphate, water, unfiltered, recover-able, µg/L (62830)	Tris(2-chloro-ethyl) phosphate, water, unfiltered, recover-able, µg/L (62831)	Tris(di-chloroiso-propyl) phosphate, water, unfiltered, recover-able, µg/L (61707)
10-28-2010	1420	--	--	--	--	--	--	--	--	--
10-28-2010	1425	--	--	--	--	--	--	--	--	--
04-05-2011	0820	--	--	--	--	--	--	--	--	--
04-05-2011	1640	--	--	--	--	--	--	--	--	--
04-06-2011	0850	--	--	--	--	--	--	--	--	--
04-19-2011	2045	--	--	--	--	--	--	--	--	--
04-20-2011	1300	--	--	--	--	--	--	--	--	--
04-20-2011	2245	--	--	--	--	--	--	--	--	--
04-21-2011	0645	--	--	--	--	--	--	--	--	--
04-22-2011	2115	--	--	--	--	--	--	--	--	--
04-26-2011	0925	--	--	--	--	--	--	--	--	--
05-15-2011	2015	--	--	--	--	--	--	--	--	--
05-16-2011	0800	--	--	--	--	--	--	--	--	--
05-17-2011	1245	--	--	--	--	--	--	--	--	--
06-02-2011	0720	--	--	--	--	--	--	--	--	--
07-07-2011	0800	--	--	--	--	--	--	--	--	--
08-03-2011	1020	< .16	< .16	< .04	< .32	E .036	< .08	E .395	< .16	< .32
08-08-2011	0945	--	--	--	--	--	--	--	--	--

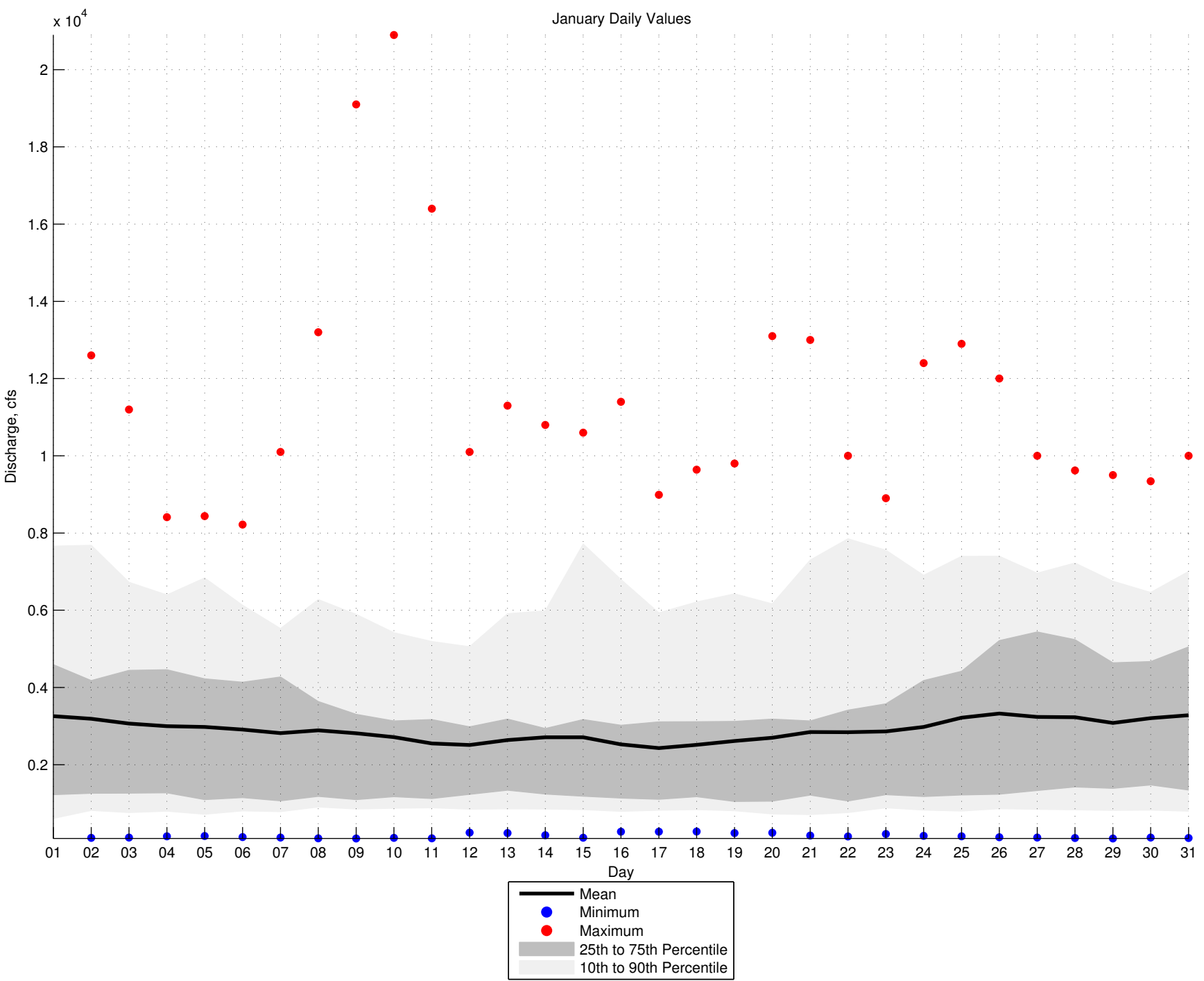
04231600 GENESSEE RIVER AT FORD STREET BRIDGE, ROCHESTER, NY—Continued

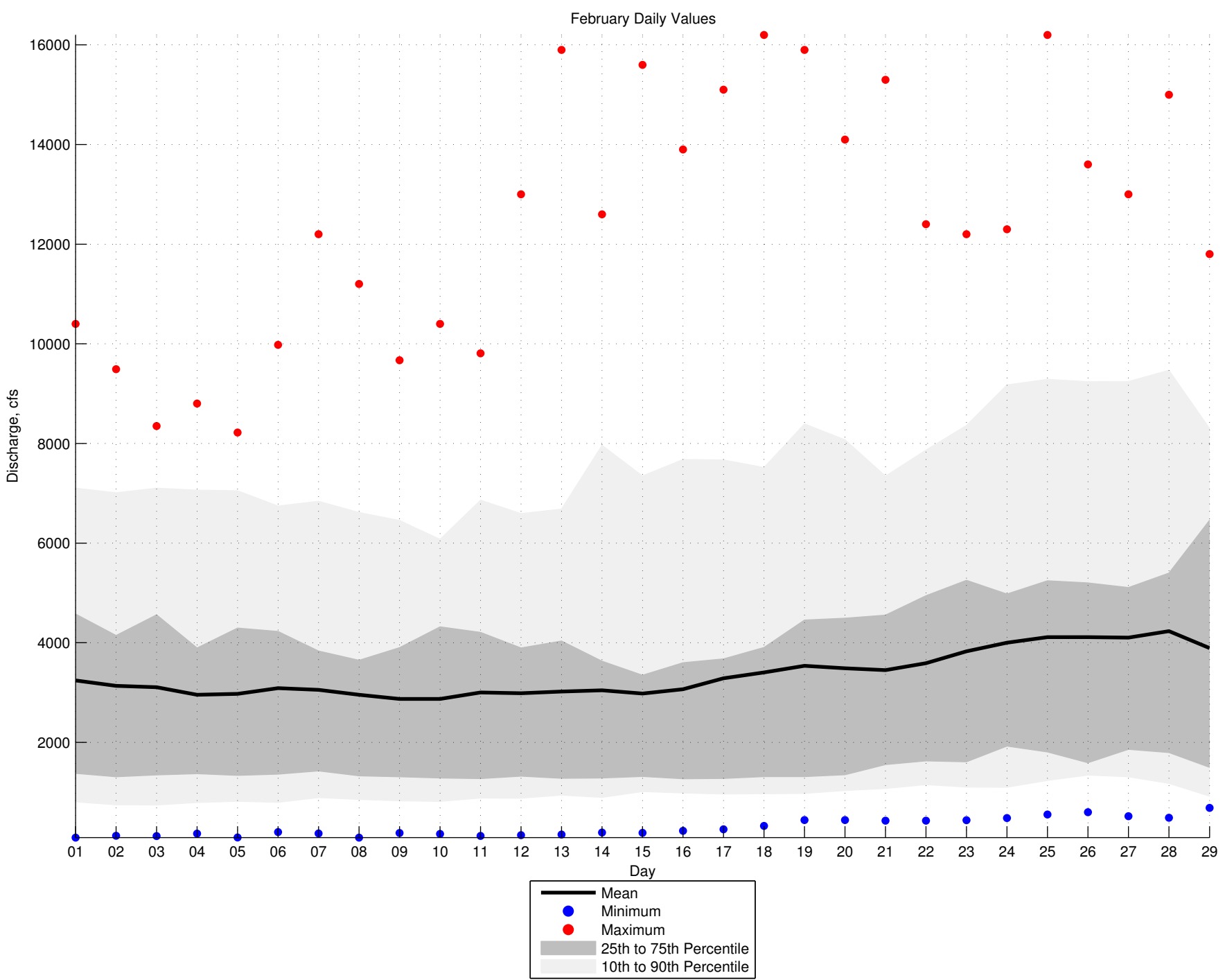
WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
Part 15 of 15

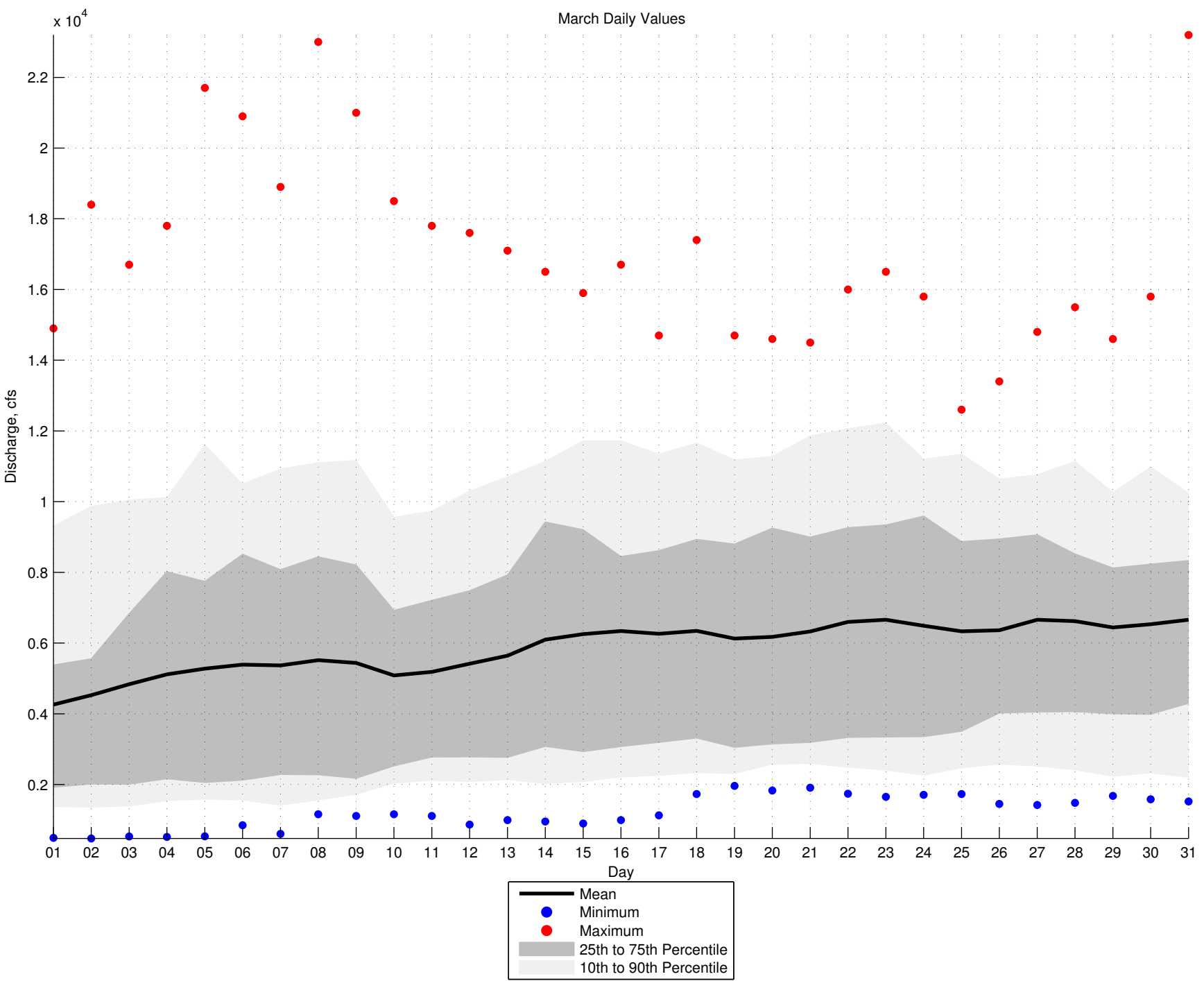
[FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft, feet; ft3/s, cubic feet per second; ft³/s, cubic feet per second; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

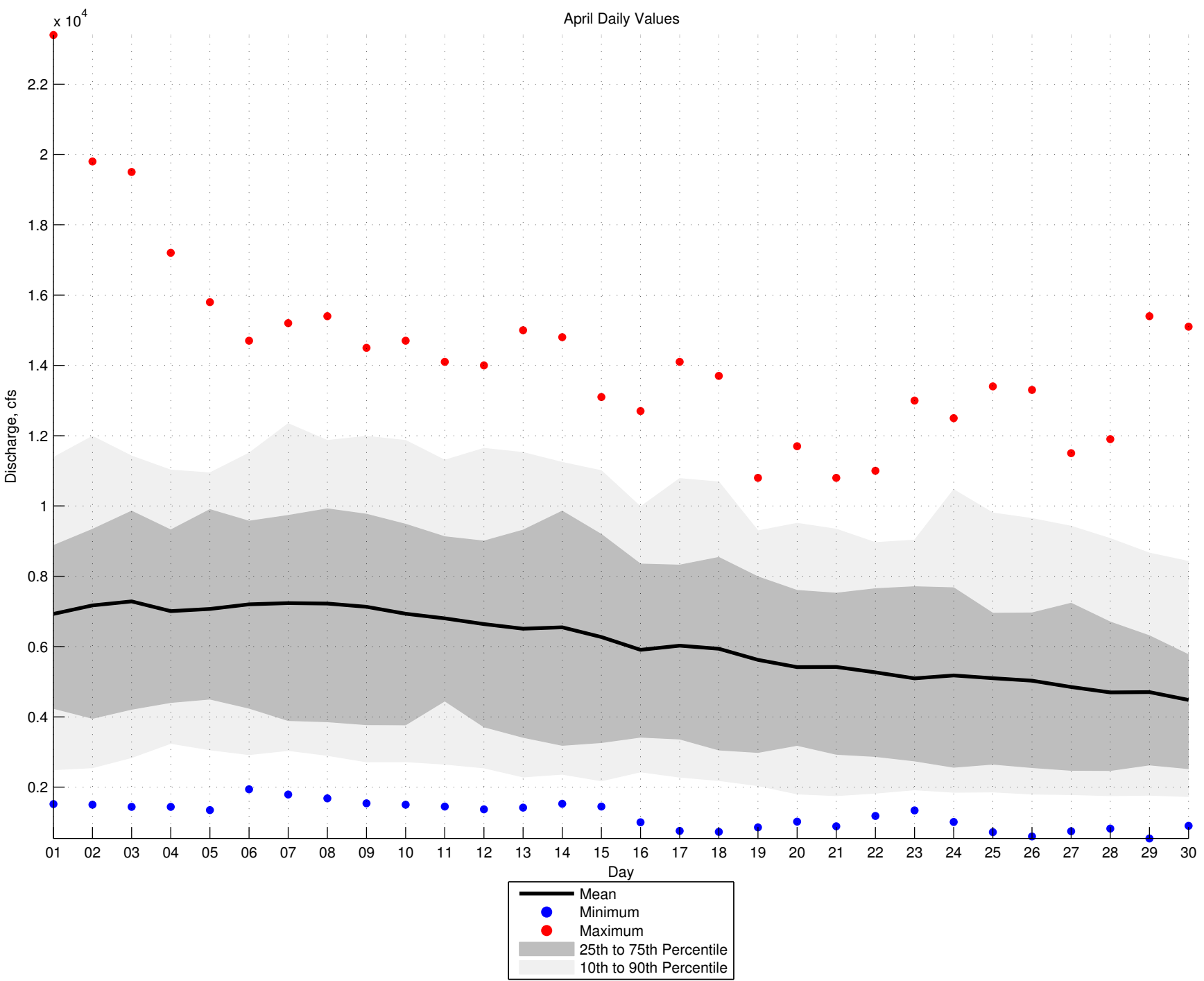
Date	Sample start time	Suspended sediment concen-tration, mg/L (80154)
10-28-2010	**1420**	--
10-28-2010	**1425**	--
04-05-2011	**0820**	156
04-05-2011	**1640**	121
04-06-2011	**0850**	473
04-19-2011	**2045**	101
04-20-2011	**1300**	164
04-20-2011	**2245**	398
04-21-2011	**0645**	543
04-22-2011	**2115**	600
04-26-2011	**0925**	176
05-15-2011	**2015**	81
05-16-2011	**0800**	186
05-17-2011	**1245**	234
06-02-2011	**0720**	109
07-07-2011	**0800**	19
08-03-2011	**1020**	--
08-08-2011	**0945**	14

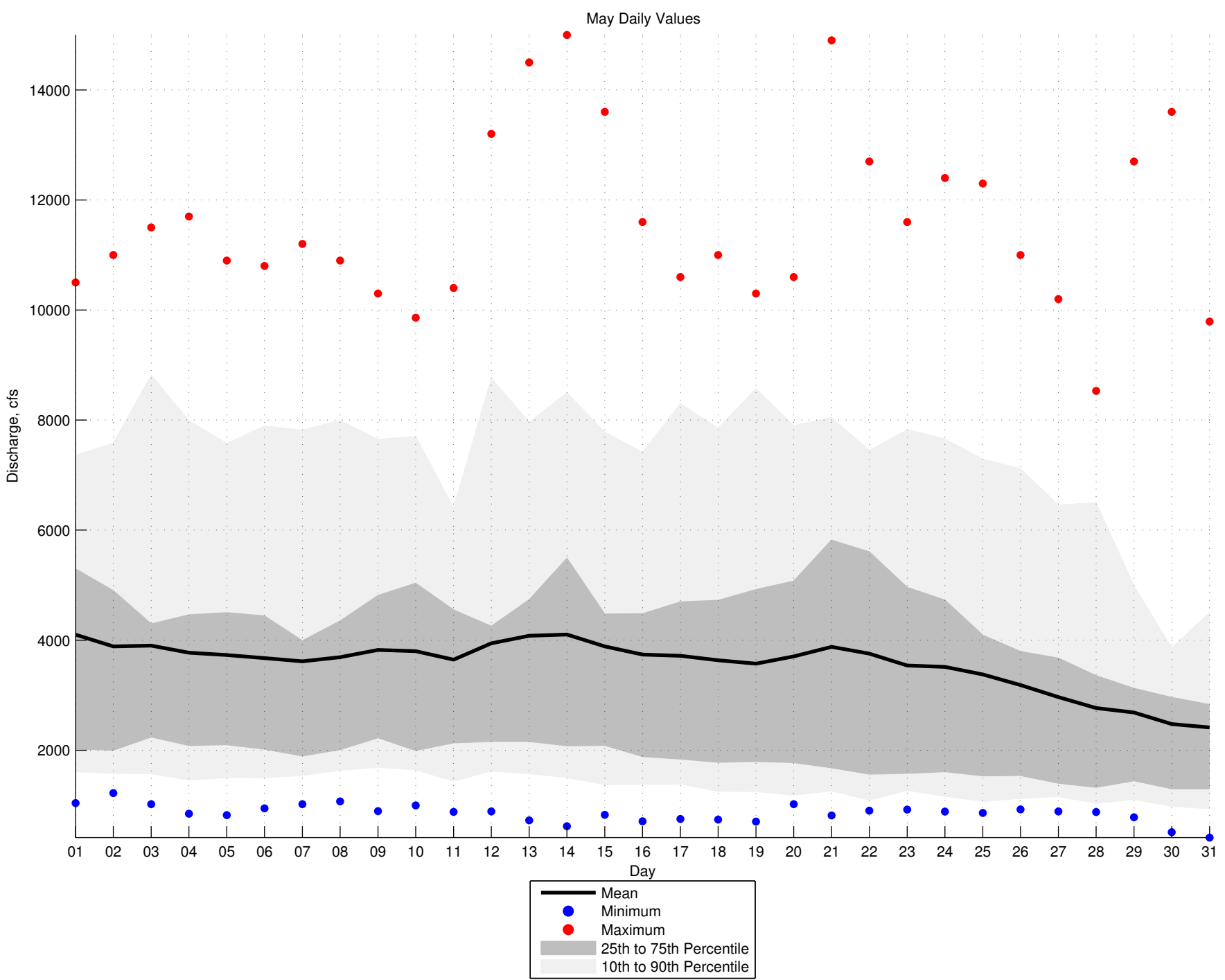
Plots of daily/monthly gage height values

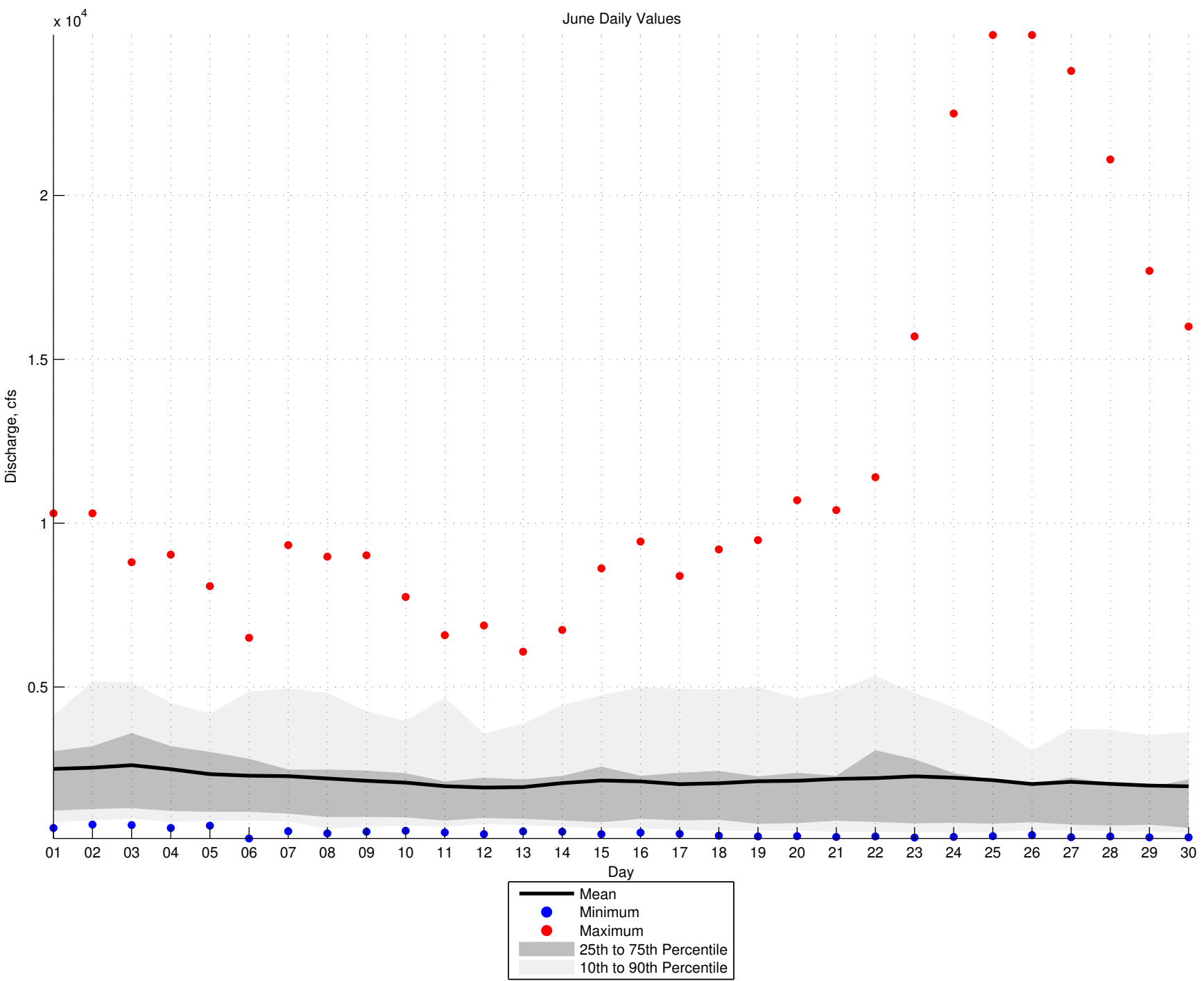

January Daily Values
x 10^4
Discharge, cfs
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile

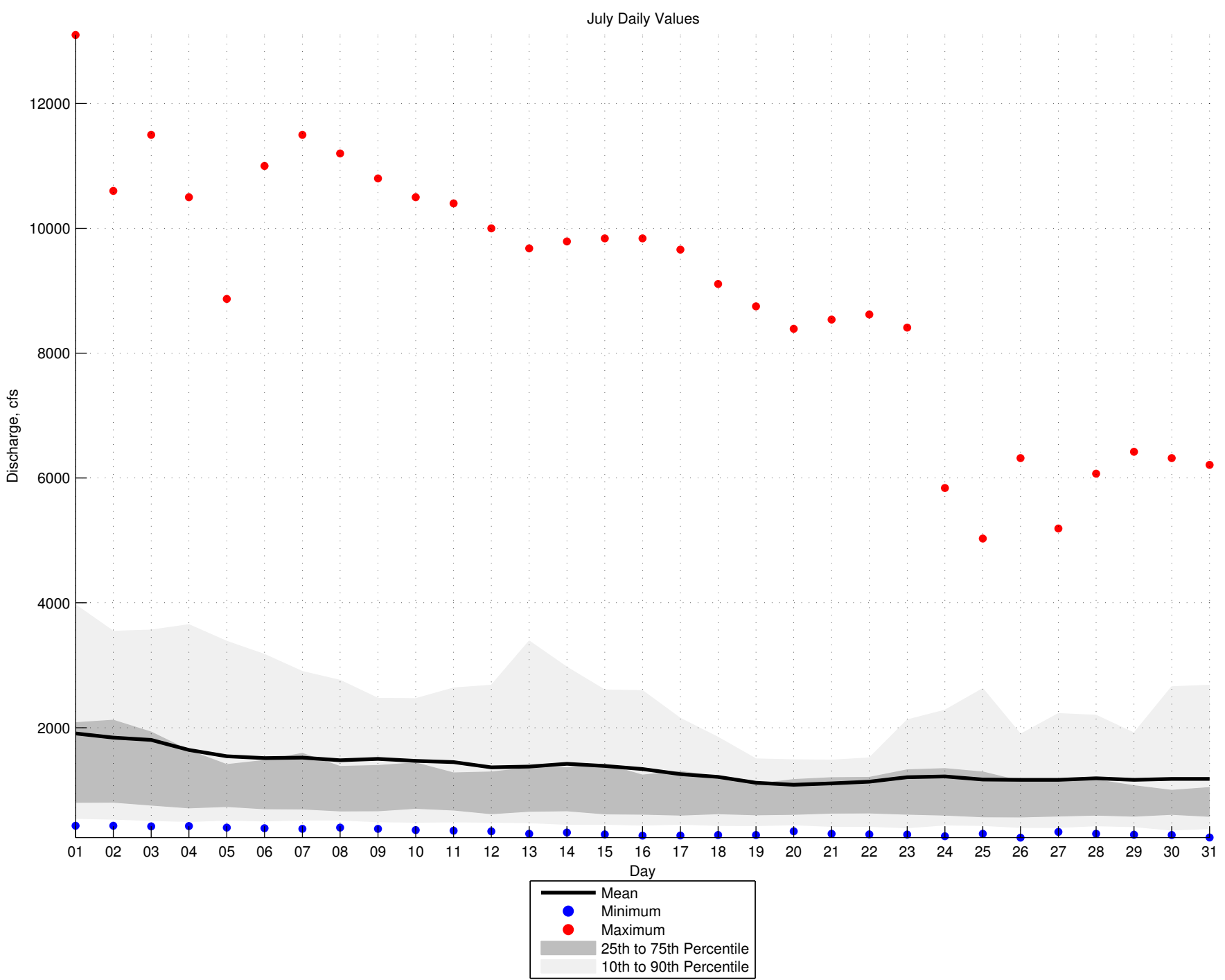

February Daily Values
Discharge, cfs
16000
14000
12000
10000
8000
6000
4000
2000
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile

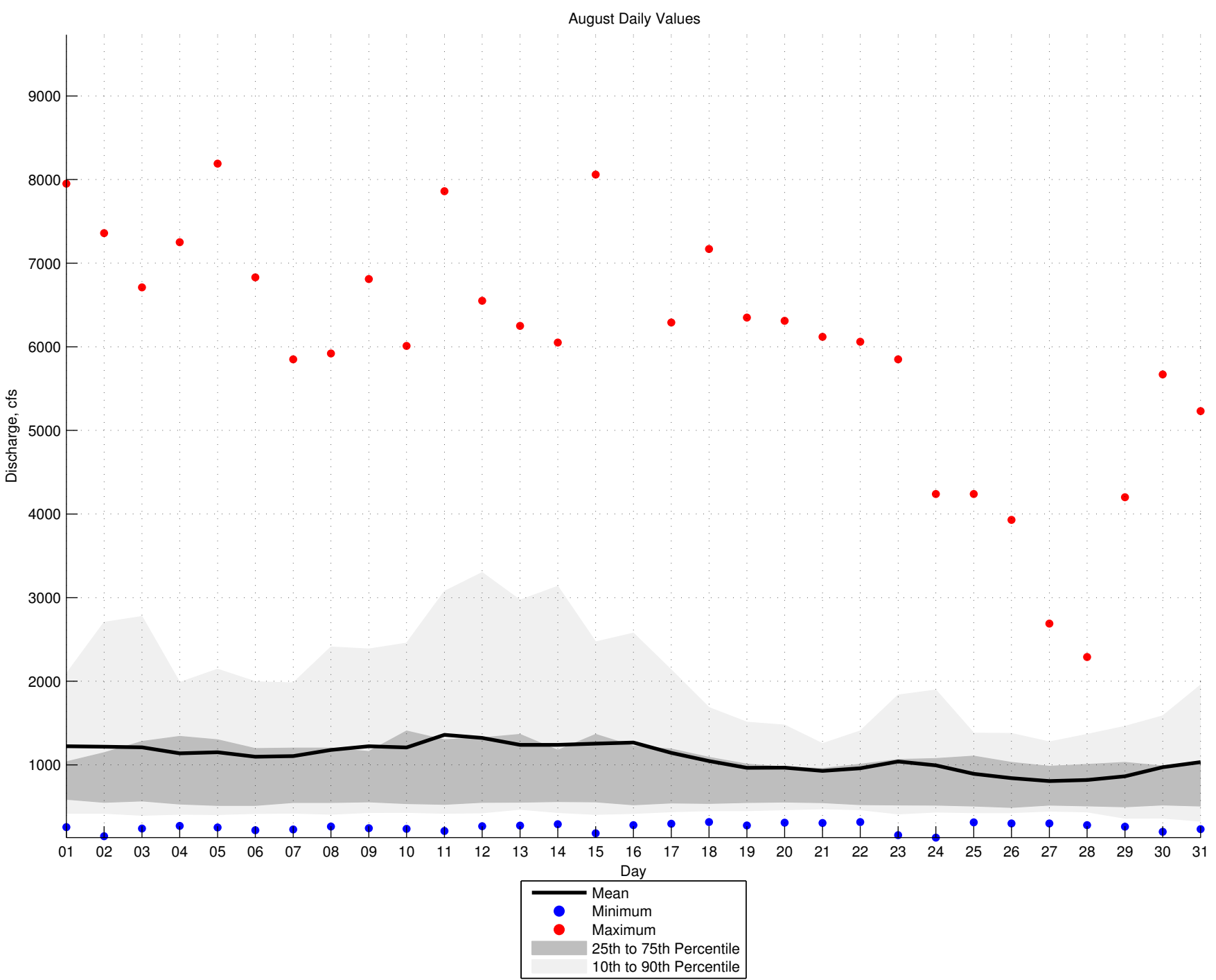

March Daily Values
x 10^4
Discharge, cfs
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile

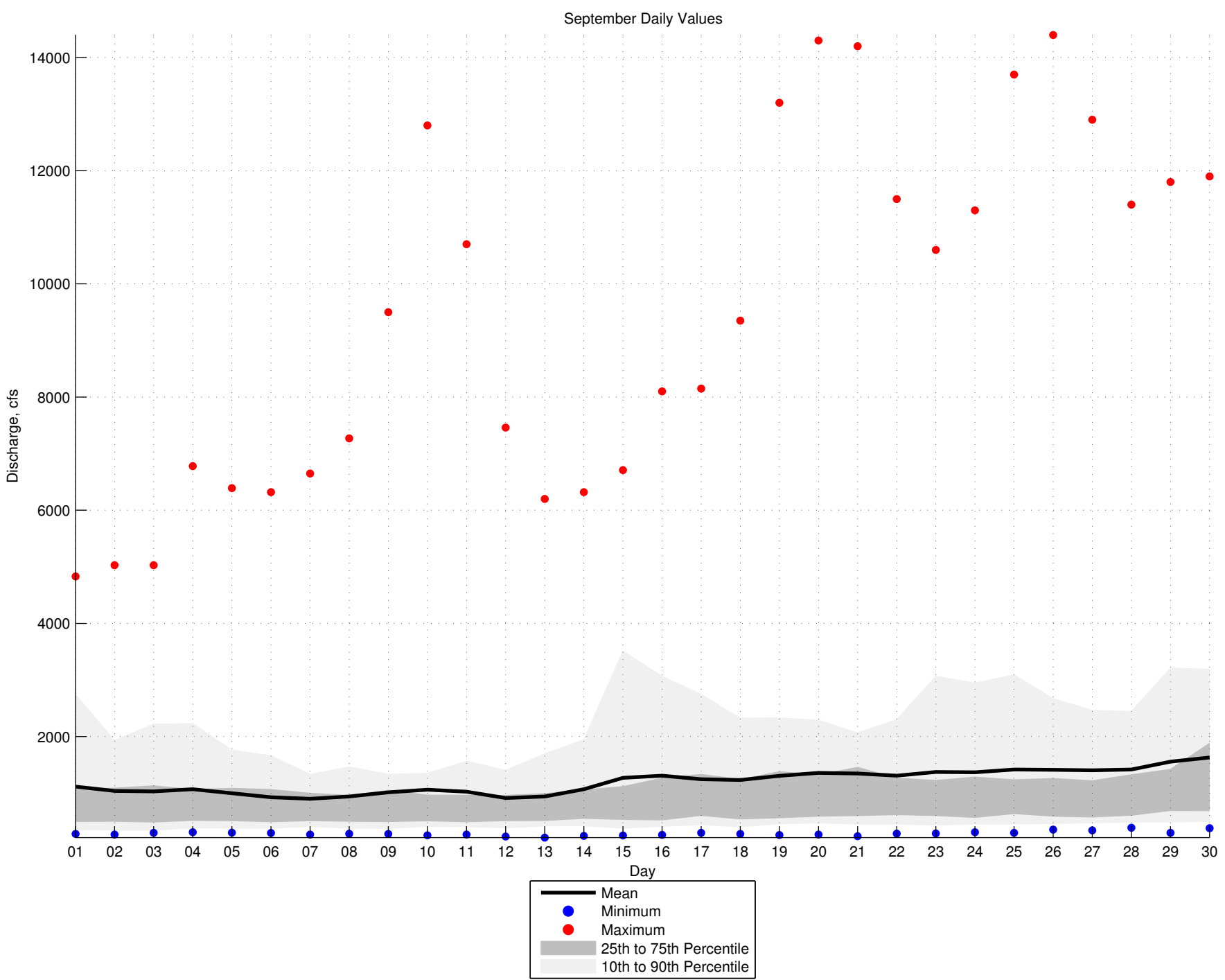

April Daily Values
x 10^4
Discharge, cfs
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile

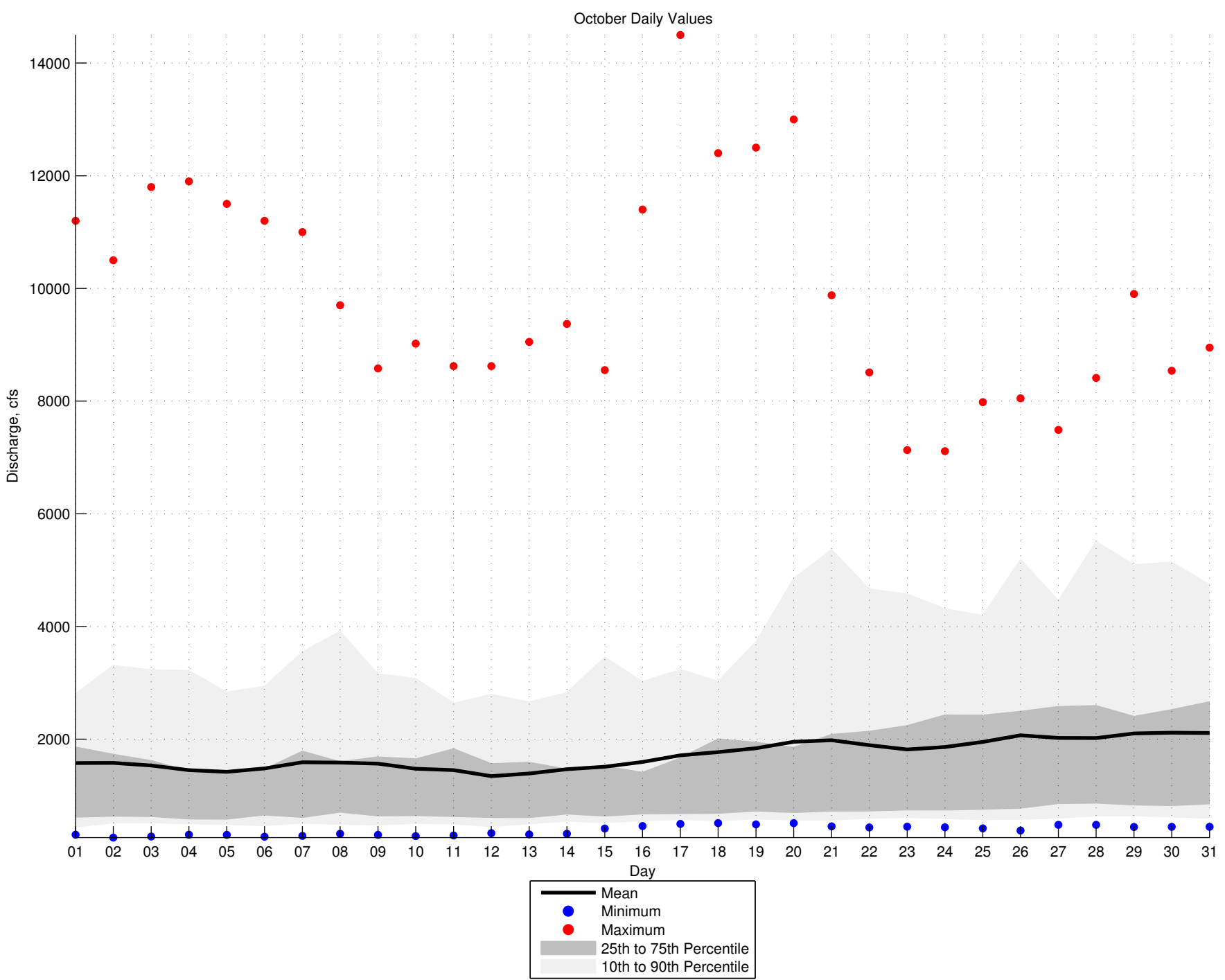

May Daily Values
Discharge, cfs
14000
12000
10000
8000
6000
4000
2000
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile

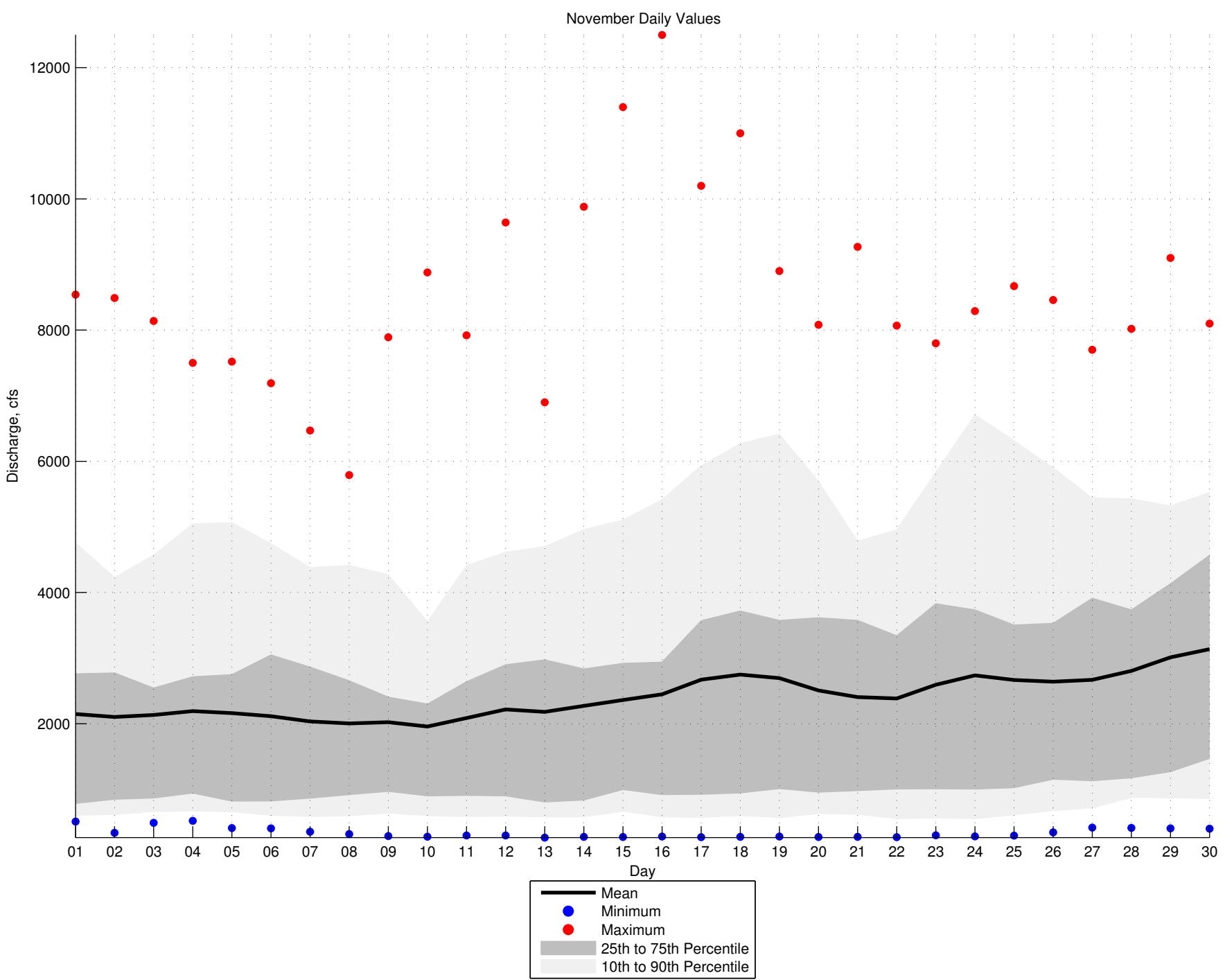

June Daily Values
x 10^4
Discharge, cfs
2
1.5
1
0.5
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile

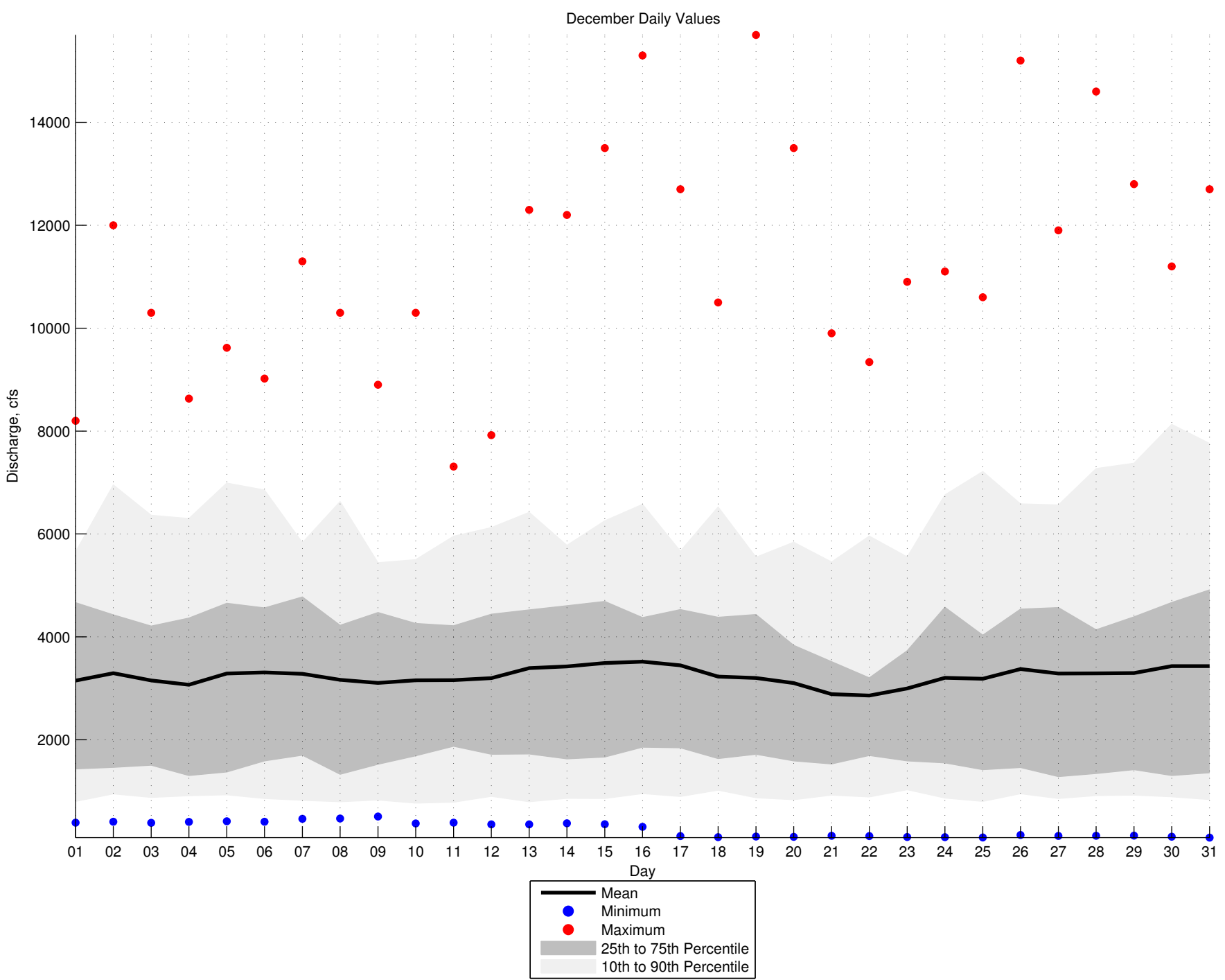

July Daily Values
Discharge, cfs
12000
10000
8000
6000
4000
2000
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile

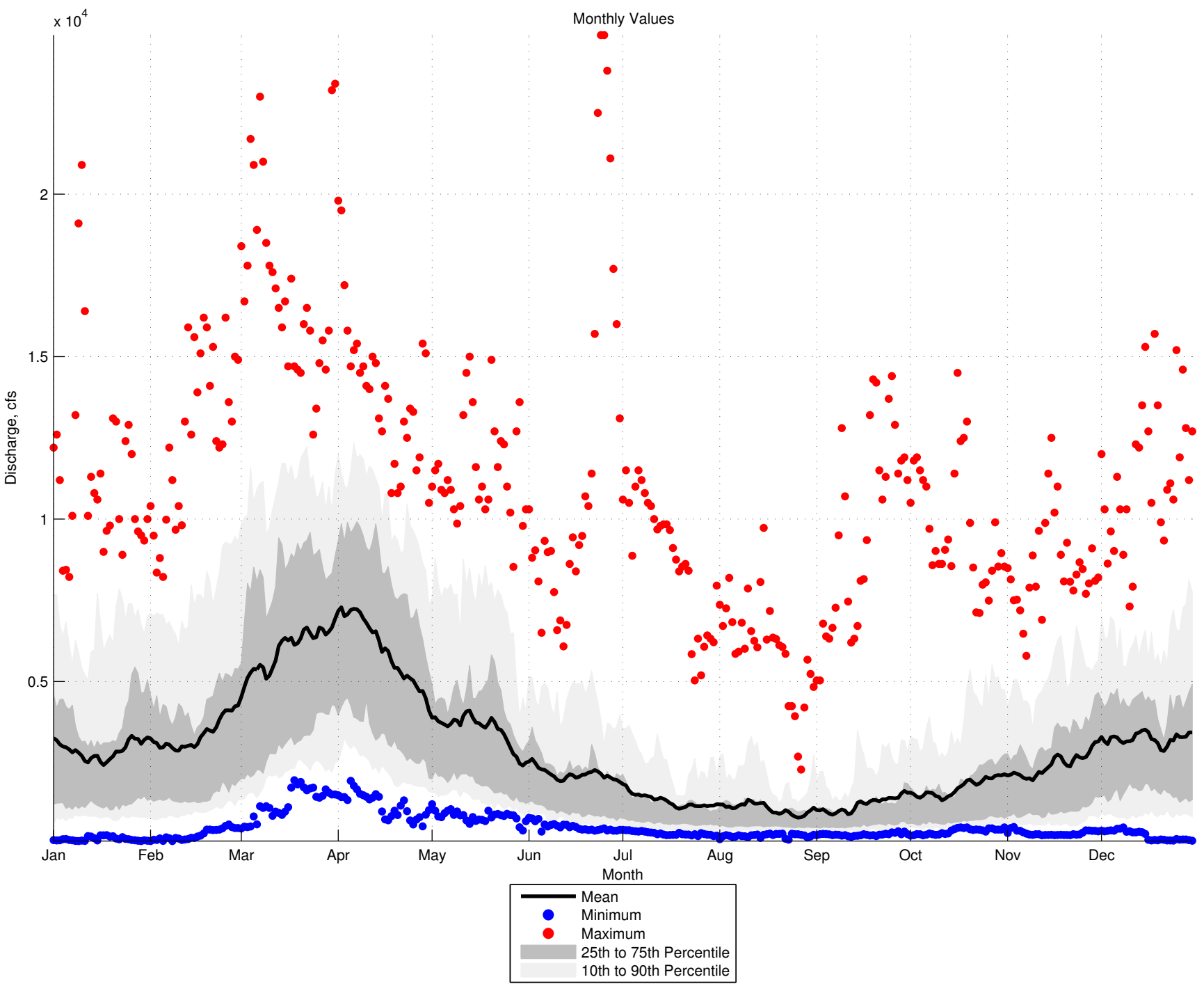

August Daily Values
Discharge, cfs
9000
8000
7000
6000
5000
4000
3000
2000
1000
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile


September Daily Values
Discharge, cfs
14000
12000
10000
8000
6000
4000
2000
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile


October Daily Values
Discharge, cfs
14000
12000
10000
8000
6000
4000
2000
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile


November Daily Values
Discharge, cfs
12000
10000
8000
6000
4000
2000
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile


December Daily Values
Discharge, cfs
14000
12000
10000
8000
6000
4000
2000
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
Day
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile


Monthly Values
x 10^4
Discharge, cfs
2
1.5
1
0.5
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month
Mean
Minimum
Maximum
25th to 75th Percentile
10th to 90th Percentile

Genesee Valley Park – Pool and Ice Rink Building
General - Existing Building Conditions Report
March 18, 2013

1.0 Introduction / Executive Summary

On February 7, 2013, Mike Duell of LaBella Associates visited the Genesee Valley Park (GVP) Pool and Ice Rink Building with Zac Steele of Bayer Landscape Architecture, and representatives from the City of Rochester. The intent of this visit was for a cursory field examination of the primary building components and general site in an effort to provide this "General - Existing Building Conditions Report". An existing Building Survey provided by the City of Rochester dated 12/30/2010, and brief discussions with City of Rochester staff were also used for contribution to this report. It is not the intent of this report to provide an extensive review of the building or any associated building systems.

The GVP Pool and Ice Rink Building is located at 131 Elmwood Avenue, Rochester, N.Y., and is owned and operated by the City of Rochester. The Pool and Ice Rink Building serves as a hub of the GVP Sports Complex. The facility houses an ice skating arena and an outdoor Olympic sized swimming pool. The building is divided into two main areas. The original service portion, built in 1976 is a single story constructed of a masonry structure. It houses administrative offices, food service vendor, skate rental, locker rooms, toilet facilities, and mechanical equipment for the pool and ice rink. The ice rink enclosure structure was added in 1987 to enclose the existing ice rink. This is a single story (high bay) steel framed structure with masonry walls. Both sections of the building have slab on grade foundation and floor systems. Many recent repairs, upgrades, and renovations over the past few years have left this complex in very good condition. Although in overall very good condition, there are many interior repairs and upgrades that are necessary in the near future which the City of Rochester is currently in the process of beginning.

2.0 Site Observations

The Pool and Ice Rink Facility is located within the park on what appears to be a very well maintained site. There is an access driveway and parking directly associated with the building. The building is handicap accessible. The overall site and parking areas appear to be in generally very good condition with adequate drainage and lighting.

Approach to the facility from the parking lot

Side view looking over pool towards facility

3.0 Exterior Building Observations

The exterior walls are constructed mainly of decorative masonry at the exterior side with CMU exposed to the interior side, both of which are in very good condition. The main structure for the Ice Rink Building is a steel frame. The roofs of each section are gabled structures framed in steel with standing seam metal panels which both also appear to be in very good condition. City of Rochester staff was not aware of any known roof leaks when asked during the site visit. Exterior windows and doors are in good to fair condition.

Exterior side of Pool Building

Back side of Ice Rink

4.0 Interior Building Observations

The interior space of the Pool and Ice Rink Facility is generally in good condition structurally and functions well except that the restrooms are in poor shape and the shower areas need improvement. The overall condition of the finishes including doors and frames are generally worn and in very poor condition. City of Rochester Staff has confirmed that interior deficiencies at the restrooms, showers, food service area, and worn finishes are currently being evaluated for an upcoming interior renovation.

The mechanical, electrical, and plumbing (MEP) systems, including Pool and Ice Rink equipment were not investigated during our field observances, but all appear to be in very good operating condition. Also, based on the existing Building Survey dated 12/30/2010 from the City of Rochester, and brief discussions with City of Rochester Staff, these systems are also considered to be very well maintained.

Ice Rink

Interior service corridor

Worn and deteriorated interior finishes

Un-desirable shower spaces

5.0 Conclusion

The associated site and exterior of the Pool and Ice Rink Building are in overall very good condition. The interior space of the Pool and Ice Rink Building is structurally in good condition, but does not function entirely as desired in public service areas, and many of the finishes are worn, outdated, and in generally poor condition.

Genesee Valley Park – Field House
General - Existing Building Conditions Report
March 18, 2013

1.0 Introduction / Executive Summary

On February 7, 2013, Mike Duell of LaBella Associates visited the Genesee Valley Park (GVP) Field House with Zac Steele of Bayer Landscape Architecture, and representatives from the City of Rochester. The intent of this visit was for a cursory field examination of the primary building components and general site in an effort to provide this "General - Existing Building Conditions Report". An existing Building Survey provided by the City of Rochester dated 8/4/2011, and brief discussions with City of Rochester staff were also used for contribution to this report. It is not the intent of this report to provide an extensive review of the building or any associated building systems.

The GVP Field House is located at 1316 Genesee Street, Rochester, N.Y., and is owned and operated by the City of Rochester. The City of Rochester Department of Parks, Recreation, and Human Services currently rent's this space out to the public to facilitate social gatherings and picnic type functions. It's a single story building, constructed of a masonry structure, with a slab on grade foundation and floor system in overall good condition.

2.0 Site Observations

The Field House is located within the park on what appears to be a very well maintained site. There is no vehicle access driveway or parking directly associated with the building. There is a ramp and railing to the main entry allowing this building to be handicap accessible. The perimeter grade adjacent to the Field House has a positive slope away from the building and has some small evergreen shrubs around the perimeter.

Front view of grade at building

Sidewalk/Ramp transition - Accessible

3.0 Exterior Building Observations

The exterior walls are constructed of CMU (exposed to the interior) with exposed brick veneer at the exterior and are in very good condition. The roof is a low-sloped gabled structure that also appears to be in very good condition. City of Rochester staff was not aware of any known roof leaks when asked during the site visit. Exterior windows are aluminum framed and appeared to be recently replaced and are also in very good condition. Exterior hollow metal type doors and frames are in fair to poor condition.

Front entry off of Genesee Street

Back side of Field House

4.0 Interior Building Observations

The interior space of the Field House consists primarily of an open space used for gathering and cooking for social events and picnics. Within the primary open space, there is a designated kitchen area. Located off of the primary space are toilet rooms, a changing area, and a storage space. The walls are painted CMU and the ceiling is painted plaster. The floor in the primary space is what appears to be asbestos containing floor tile (ACT) in fair condition. The toilet room floors are ceramic mosaic tiles in fair condition. The kitchen counter and appliances are in good to fair condition and the toilet room plumbing fixtures and toilet partitions are in fair to poor condition.

The mechanical, electrical, and plumbing (MEP) systems all appear to be in good working condition. The heating system is a newer horizontal wall mounted unit, and there is no air conditioning in this building. The interior lighting consists of wall mounted fluorescent tubes and appears to be adequate. There is both hot and cold water supply to the sinks.

Designated kitchen area within primary

Designated kitchen area within primary space

Interior Toilet Room

Primary Space ACT Flooring

5.0 Conclusion

The associated site and exterior of the Field House are in overall good condition. The interior space of the Field House is structurally in good condition, but the finishes are in fair to poor condition. The building functions as it should.

Genesee Valley Park – Genesee Waterways Center
General - Existing Building Conditions Report
March 20, 2013

1.0 Introduction / Executive Summary

On February 7, 2013, Mike Duell of LaBella Associates visited the Genesee Valley Park (GVP) Genesee Waterways Center with Zac Steele of Bayer Landscape Architecture, and representatives from the City of Rochester. The intent of this visit was for a cursory field examination of the primary building components and general site in an effort to provide this "General - Existing Building Conditions Report". An existing Building Survey provided by the City of Rochester dated 5/26/2010, and brief discussions with City of Rochester staff were also used for contribution to this report. It is not the intent of this report to provide an extensive review of the building or any associated building systems.

The GVP Waterways Center is located at 149 Elmwood Avenue, Rochester, N.Y., and is owned by the City of Rochester and operated by Genesee Waterways who is managed by a volunteer Board of Directors. The facility consists of three buildings referred to as follows:

- The Marina/Maintenance Building (Big Boat House)
- The Small Boat House
- The McQuaid Boat House

2.0 Site Observations

This Facility is located within the park along the Genesee River on what appears to be a very well maintained site. There is an access driveway and parking directly associated with the facility. The overall site and parking areas appear to be in generally very good condition with adequate drainage and lighting. The site also offers docks along river with access to canoe and kayak rentals.

Approach to the facility from the parking lot

Back side of Big Boat House

3.0 The Marina / Maintenance Building (Big Boat House)

This is a one story slab on grade building with exterior walls constructed mainly of split fluted masonry block with some upper portions framed in wood with wood siding. The roof is wood framed with gable and shed type structures. Windows are a combination of what appears to be original wood windows and vinyl replacement windows. The structure itself is in very good condition, but many of the exterior components are in fair to poor condition. City of Rochester staff has told us that there are roof leaks. Any remaining wood windows are in poor condition, and exposed wood elements including siding, trim, fascia, and soffits need to be repainted.

Main Entry approach from Parking lot

Back side of Big Boat House

Exterior side along the Genesee River

The interior of the Big Boat house is divided into two primary spaces that include a high bay garage and administrative space.

The garage space is used for boat storage, equipment storage, and maintenance of boats and equipment. The floor is exposed concrete in good condition. The walls are painted exposed CMU in good condition. The ceiling is painted gypsum board in poor condition mainly due to exposure to roof leaks. There are two types of overhead doors including sectional and coiling ranging from good to fair condition. Exterior hollow metal doors and frames are in poor condition. This space was originally used for City vehicle storage. The space functions well as boat storage, although its storage capacity has reached its limit to the extent that boats and kayaks are being stored outdoors. This space does not function properly for equipment storage and general maintenance space.

Boat and equipment storage

Interior side of exterior doors

Overhead coiling door and paddle storage

General storage

The administrative space has offices for Genesee Waterways staff, a meeting room, and men's and women's toilet rooms. The walls are painted CMU and the ceilings are painted gypsum board both in generally good condition. The floors throughout this space are either exposed concrete in good condition or carpeting in fair to poor condition. The toilet rooms appear to be in good working condition. Overall, the administrative space is in fair condition. The usage of this space is restricted and limited due to the overall lack of square footage.

Meeting Room

Toilet Room

The mechanical, electrical, and plumbing (MEP) systems were not investigated during our field observances. Based on the existing Building Survey dated 5/26/2010 from the City of Rochester, and brief discussions with

City of Rochester Staff, it's determined that the heating system in the garage space was removed and never replaced, and the HVAC system in the administrative space is an oil burning forced air system in good working condition. Lighting throughout both spaces appeared to be in fair to poor condition.

4.0 The Small Boat House

The Small Boat House is a one story slab on grade building with exterior walls constructed mainly of split fluted masonry block with some upper portions framed in wood with wood siding. The roof is a wood gable truss structure with the trusses exposed to the inside. The structure itself is in very good condition. The interior space is in very good condition. This building is used for boat and general storage and functions as it should, only more space is currently needed. The mechanical, electrical, and plumbing (MEP) systems were not investigated during this review.

Exterior view of Small Boat House

Interior view of Small Boat House

5.0 The McQuaid Boat House

The McQuaid Boat House is a one story slab on grade metal building. The entire building is in very good condition. This building is used for boat and general storage and functions as it should, only more space is currently needed. The mechanical, electrical, and plumbing (MEP) systems were not investigated during this review.

Exterior view of the McQuaid Boat House

6.0 Conclusion

The overall condition of the Waterways Center is in good to fair condition. The Big Boat House was originally designed for truck storage and over the years the facility has adapted to function as a Marina, Boat Maintenance, and Boat Storage facility. The space has been outgrown in many aspects and does not function entirely as necessary.

Genesee Valley Park – Genesee Waterways Center
April 15, 2013

1.0 Executive Summary

The Genesee Valley Park (GVP) Waterways Center is located at 149 Elmwood Avenue, Rochester, N.Y., and is owned by the City of Rochester. The facility operations are run by Genesee Waterways Center (GWC), which is managed by a volunteer Board of Directors. Providing water programs such as rowing, canoeing, kayaking, and whitewater kayaking, the current facility consists of three buildings referred to as the Big Boathouse, the Small Boathouse, and the McQuaid Boathouse.

The overall condition of the Waterways Center is in fair condition. The Big Boathouse was originally designed for truck storage, although over the years the facility has adapted to function as a Marina, Boat Maintenance, and Boat Storage facility. The Small Boathouse and the McQuaid Boathouse have both become inadequate in space.

The GWC currently has nine rowing programs using their facilities. Each of these programs ranges from about 14 to over 200 people, and continue to grow and increase the need for boat/equipment storage. As they grow, these programs are getting more competitive in both local and national competition, and the training becomes year-round. What was once just needed as a facility for boat storage, GWC is now experiencing the need and demand to evolve into an entire rowing training facility. The following two sections bullet the current facility uses in comparison to the current and projected needs of GWC.

2.0 Existing Facilities Current Space

EXISTING		
1	**Site**	
a.	Parking	xx spaces
b.	Exterior Storage	Approx. 10,000 sf
2	**Office Space**	
a.	Conference Room	800 sf
b.	Executive Director	500 sf
c.	Office	700 sf
3	**Boat Storage**	
a.	"Big Boathouse"	5,120 sf
b.	"Small Boathouse"	3,200 sf
c.	"McQuaid Boathouse"	3,200 sf
4	**Toilet Rooms**	
a.	Public Men's	560 sf
b.	Public Women's	560 sf
	Total Building Area (not including site)	Approx. 14,640 sf

3.0 Proposed Facilities "General" Program

PROPOSED		
1	**Site:**	
	a. Parking	spaces - TBD
	b. Separation of public vs. private	
	c. Boat bay access/circulation	
	d. Access to Canal Path	
	e. Gasoline Storage	100 sf
2	**Office Space :**	
	For GWC staff and program necessities.	
	a. Conference Room (100 person)	1,200 sf
	b. Meeting Room (20 person)	600 sf
	c. Meeting Room (20 person)	600 sf
	d. Office - Executive Director	200 sf
	e. Office - Coaches (shared)	200 sf
	f. Office	150 sf
	g. Office	150 sf
3	**Boat Storage:**	
	For GWC programs and clubs.	
	a. Boat Bays (7 @ 20' x 80)'	11,200 sf
	1. Racing shells	
	2. Oars	
	3. Safety Equipment	
	4. Cox Box charging station	
	5. Work bench - General	
	b. Boat Repair Bay 20' x 80') - heated	1,600 sf
	c. Storage Area, locked	600 sf
4	**Toilet / Locker Rooms:**	
	Different facilities for public use and GWC training programs.	
	a. Public Men's	560 sf
	b. Public Women's	560 sf
	c. Locker Room Men's	1,200 sf
	d. Locker Room Women's	1,200 sf
5	**Athletic Training:**	
	Space for GWC rowing programs to cross-train year-round.	
	a. Indoor Fitness Center	4,800 sf

	1. Weight Equipment 2. Free Weights 3. Cardio Machines 4. Ergometers	
b.	Outdoor Training Space	1,000
c.	Indoor Rowing Tanks	14,600 sf
6	**Rental Facility:** **Space for public walk-ins to rent equipment for day use.**	
a.	Rental Office / Merchandise Sales	400 sf
b.	Small Office	200 sf
c.	Storage Building 1. Canoes 2. Kayaks 3. Docks 4. General Storage 5. Display for exterior marketing	1,000 sf
d.	Access from canal trail to park	
	Total Building Area (not including site)	**Approx. 42,020 sf**

4.0 Conclusion

Genesee Waterways Center has maintained and adapted their programs to function within their existing facilities since 1996. However, due to the increasing popularity and accessibility of water sports in the Greater Rochester area, the GWC has outgrown its existing facilities, which is hindering the potential growth of existing and future programs. The proposed program increase would not only allow for the necessary training and storage space, but would also promote and encourage more use of the Genesee Valley Park.

Genesee Riverway Trail Count and Survey Data Report

September 27, 2012

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Acknowledgements

The authors would like to thank the many individuals and organizations that provided input to and feedback on the study design, research protocols, and draft report, including staff from the City of Rochester, Monroe County, and the Genesee Transportation Council. We would also like to thank the many Southwest community leaders and volunteers from organizations such as the Rochester Cycling Alliance for their input and assistance with data collection. This project was supported in part by the Health Impact Project – a collaboration of the Robert Wood Johnson Foundation and The Pew Charitable Trusts. The authors would also like to thank Kriti Thapa, Sandeep Sandhu, Emma Caldwell, Hannah Sherry, Douglas Done, and Neal Weisbrod for their assistance with data collection and literature reviews. Additional staff support was provided by the University of Rochester Reach Internship Funding program (Sherry) and NIEHS Grant number P30 ES001247 to the University of Rochester's Environmental Health Sciences Center (Korfmacher). The opinions expressed are those of the authors and do not necessarily reflect the views of the Health Impact Project, Robert Wood Johnson Foundation or The Pew Charitable Trusts. The authors are solely responsible for the content of this report.

Comments on this report are welcome. Please send any questions or comments to:

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Executive Summary

This report summarizes data collected from trail user counts and surveys conducted along the Genesee Riverway Trail (GRT) throughout the City of Rochester, NY during June and July 2012 as part of Healthy Waterways, a Health Impact Assessment (HIA) of the City of Rochester's Local Waterfront Revitalization Program (LWRP). The HIA is being conducted by the University of Rochester's Environmental Health Sciences Center with funding from the Health Impact Project – a collaboration of the Robert Wood Johnson Foundation and The Pew Charitable Trusts.

City Department of Environmental Services staff selected twelve sampling sites along the Genesee Riverway Trail (GRT). Each site was visited at least twice between June and July 2012. Most count sites were on dedicated trails (physically separate from roads). At each site, the survey team counted the total number of trail users (bicyclists, pedestrians, and other) and invited trail users to complete a short survey. Trail count and survey methodologies were adapted from the National Bicycle and Pedestrian Documentation Project Standard Bicycle and Pedestrian Surveys.

The survey team counted 2019 trail users during 54 hours of observation. User 'density' (users per hour) was slightly higher during peak recreational hours than during commute times. Density was nearly twice as high in the Southern sampling sites as in the Central sites. Fifty-seven percent of trail users were bicycling and 74% of cyclists were male. Of the 40% of pedestrians, 59% were male. Disproportionate trail usage by males (68% of all users) may be due to the popularity of biking among men and/or due to safety concerns by women. The vast majority of trail users appeared to be adults (94%).

Two hundred sixty-five trail users completed the survey. Pedestrians were slightly overrepresented in the sample (46%, 123). About 83% (205) of survey respondents were White and 69% (162) were male. The majority of people were using the trails for exercise and recreation, with 57% (151) and 54% (144) respectively; many respondents selected both, indicating that they enjoy exercising outdoors on the trails. Most users visited the trail 10 or fewer times each month (60%, 156). However, many also visited the trail frequently (11 or more times in the past month, 40%, 106).

Of those walking on the trail, 38% (47) reported that they drove to get to the trail, whereas 59% (72) walked, suggesting that the trail is a significant exercise resource for those living or working near the trail. For those who walked to the trail, the average distance travelled to reach the trail was over a mile (1.18). The average trip time for all users was longer than the CDC recommendation of 30 minutes or more of physical activity (bikers, 75.04 minutes; walkers, 61.45; and others, 44.44 minutes).

The survey asked several questions about characteristics of the trail and potential improvements. Most (76%, 200) of trail users identified the safety and security along the section of trail they were on as "Good" or "Excellent." However, anecdotal reports from community members regarding crime in certain neighborhoods suggest that safety and security may be a potential limitation to trail usage. The most desirable features appeared to be "Scenic Qualities" with 65%

(170) respondents selecting that response, followed by "Convenient Route" (46%, 119) and "No Cars" (35%, 92). About 22% (57) of the respondents selected "Personal Safety" as at least one of their reasons for using that particular trail. When asked about what they would like to see improved along this trail, nearly a third of respondents (32% (81) suggested "Other" improvements that were not listed in the survey, including bathrooms, water fountains, and trash cans. Of the options listed, the most commonly selected were "Nothing" with 23% (58), "Better Surface" with 20% (50), and "Better Maintenance" with 19% (49).

This report presents a preliminary summary of data for feedback, discussion, and consideration in the LWRP process. Next steps include conducting statistical tests to identify significant results, and further analysis of implications for the LWRP. These results will be incorporated in to the final HIA, which is expected to be completed in June 2013.

Introduction

This report summarizes data collected from trail user counts and surveys conducted along the Genesee Riverway Trail (GRT) throughout the City of Rochester, NY during June and July 2012 as part of Healthy Waterways, a Health Impact Assessment (HIA) of the City of Rochester's Local Waterfront Revitalization Program (LWRP). The HIA is being conducted by the University of Rochester's Environmental Health Sciences Center with funding from the Health Impact Project – a collaboration between the Pew Charitable Trusts and the Robert Wood Johnson Foundation. The City of Rochester is under contract by the New York Department of State's Division of Coastal Resources to update its Local Waterfront Revitalization Program by 2013. Rochester's LWRP guides decisions affecting areas of the city adjacent to the Erie Canal, along the Genesee River from the canal north to Lake Ontario, and around the Ontario and Durand Eastman beaches. Separate planning processes address activities in the Port of Rochester.

HIA is a voluntary policy and planning tool for providing decision-makers in non-health sectors with information and recommendations on how their proposed plans and policies will likely impact the health of the communities they serve (for more information, see www.healthimpactproject.org). HIA has developed in response to growing awareness that many kinds of policies and decisions – including those affecting land use, education, criminal justice, transportation, and environment – significantly affect human health. The overall goal of HIA is to ensure that health is considered when decisions are made in order to maximize positive health impacts and minimize negative health impacts for all affected populations, particularly those groups that are already at higher risk for health problems.

The Genesee Riverway trail system extends from Genesee Valley Park north to Lake Ontario, along both sides of the Genesee River, as well as along the lakefront near Ontario and Durand Eastman beaches. Given the potential importance of trails to a community's health – including opportunities for recreation, transportation, and physical activity – the Healthy Waterways study team decided to assess potential trail changes as part of this study.[1] Likewise, given the extent of riverfront property dedicated to trails, the LWRP is likely to affect the GRT in some way. For example, the LWRP may address sections of trail that follow roadways, particularly within City limits.

Understanding the importance of such benefits, the City has committed many resources to developing, maintaining and improving this trail system. Despite the City's dedicated investment of resources, there exists little information on trail use. There is not a lot of data regarding how many people are using the system annually, which sections of trail are most used, where users are coming from, how they use the trails, and what barriers they may face to using them more. In order to better understand potential health impacts of changes to the trail system, it is essential to first understand these characteristics of trail users.

[1] For information on the many health benefits of parks and open spaces (e.g., trail systems), visit http://www.humanimpact.org/evidencebase/category/parks_and_open_spaces. A more detailed analysis of physical activity will also be included in the final Healthy Waterways Project Report.

As a first step in answering these questions, the study team conducted trail counts and surveys to collect information on trail users. Surveys also asked users about current trail conditions and possible changes they would like to see along the trails (see Appendix 1 for the survey). This report summarizes data collected through the trail counts and surveys. This summary is intended to inform development of the HIA of Rochester's ongoing LWRP update, which is expected to be finalized by June 2013.

Methods

City Department of Environmental Services staff selected twelve sampling sites: Genesee Valley Park West, Genesee Valley Park East, Erie-Lackawanna Railroad Bridge, Ford St. Bridge near Mt. Hope, South Ave. underneath Route 490, Cataract St. at Pont de Rennes Bridge, Scrantom St. at St. Paul St., Maplewood Park at Bridgeview Drive, Zoo Rd. at Seneca Park Blvd., Turning Point Park, Intersection of the Lake Ontario State Parkway and the Genesee Riverway Trails on River St., and Irondequoit Lakeside Trail at Durand Eastman Park. These locations were divided into three groups for analysis: South, Central and North (Figure 1). The South sites are clustered around Genesee Valley Park, the University of Rochester, and the recently-opened Erie Lackawanna Pedestrian Bridge that connects the University to neighborhoods in Southwest Rochester. The Central sites encompass the urban downtown area through several inner city residential neighborhoods. The majority of the North sites are in or near parks, including those near Ontario and Durand beaches. Most count sites were on dedicated trails (physically separate from roads); however, the Lake Ontario State Parkway, Scrantom Street and Zoo Road sites were on a portion of the trail that is marked on a city street.

Figure 1 – Trail Count and Survey Locations

South:

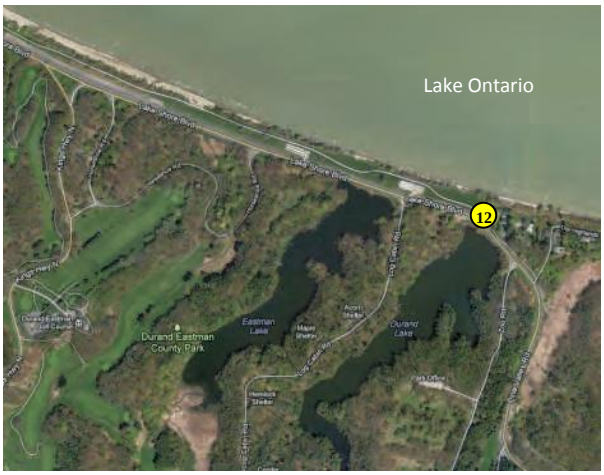
1. Genesee Valley Park (West)
2. Genesee Valley Park (East)
3. Erie-Lackawanna Railroad Bridge
4. Ford St. Bridge near Mt. Hope

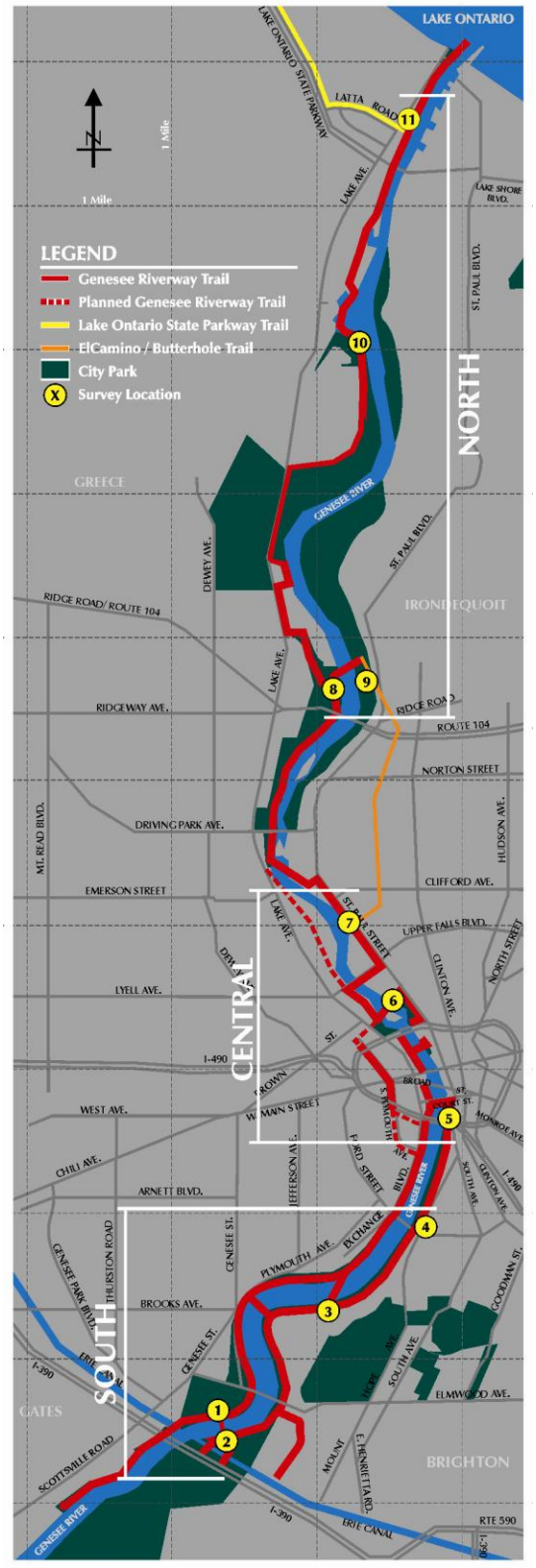
Central:

5. South Ave., underneath Route 490
6. Cataract St. at Pont de Rennes Bridge
7. Scrantom St. at St. Paul St.

North

8. Maplewood Park at Bridgeview Dr.
9. Zoo Rd. at Seneca Park Blvd.
10. Turning Point Park
11. Intersection of Lake Ontario State Parkway and the Genesee Riverway Trails at River St.
12. Irondequoit Lakeside Trail at Durand Eastman Park





Trail count and survey methodologies were adapted from the National Bicycle and Pedestrian Documentation Project Standard Bicycle and Pedestrian Surveys (Appendixes 1 and 2).[1] Each site was visited during at least one commute time and at least one recreation time. Commute times were Tuesday through Thursday from 4:00PM to 6:00PM; recreation times were Saturday and Sunday from 10:00AM to 12:00PM, or 1:00PM to 3:00PM. The study team attempted an additional "commute" time of 7:00AM to 9:00AM at the Erie-Lackawanna Railroad Bridge, however there seemed to be fewer people using the trail at this time of day. Therefore, we conducted the remaining counts between 4 and 6 PM. In addition to this morning commute time, the Erie-Lackawanna Railroad Bridge was visited four times: two evening commute times and two recreational use times. This was done in order to assess trail use before and after the pedestrian bridge across the Genesee River opened in July. All counts and surveys were conducted during fair weather conditions during summer months.

Counts and surveys were conducted in two-hour time blocks with counts recorded in fifteen-minute increments. Trail users were identified as a pedestrian, biker, or other in the count, separated by gender. Individuals walking a bicycle were recorded as pedestrians. It was also noted by project staff if the user appeared to be under 18 (marked as "Y" for youth). The use category "other" included all users who were not walking, running, or biking, including children in strollers and passengers on bicycles. For bikers, whether or not they wore a helmet was also recorded.

City staff were additionally interested in the direction of travel at six sites. To provide this information, the study team adapted the NBPD intersection count form to record the direction of travel for each user at Genesee Valley Park East and West, Erie-Lackawanna Railroad Bridge, Scrantom St at St. Paul Blvd., Maplewood Park at Bridgeview Drive, and the intersection of Lake Ontario State Parkway and Genesee Riverway Trails. Direction data are summarized in Appendix 3.

For safety reasons, a minimum of two people staffed each sampling location. This made it convenient for one to focus on counts while the other(s) conducted surveys to help ensure accurate counts. Staff conducting surveys carried multiple clipboards to allow multiple users to complete the survey simultaneously. When supplies were available, participants were offered granola bars after taking the survey. However, the survey team did not notice a difference in tendency to respond when granola bars were unavailable.

Project staff developed the trail user survey using the National Bicycle and Pedestrian Documentation Project Standard Bicycle and Pedestrian Surveys,[1] the Parks and Trails NY Trail User Survey,[2] and the Portland State University Trail Use Survey.[3] Questions addressed the duration of physical activity, residence of users, reasons for selecting the trail over others, barriers to trail use, helmet use, and fish consumption. Demographic information, improvements users would like to see, perception of safety, and factors influencing frequency of use were also included. Survey questions regarding fish consumption are not summarized in this report, but are available upon request.

Trail users were stopped by members of the study team and asked if they would like to take a 5-10 minute voluntary survey. While staff did not record the total number of rejections, they

observed that most walkers, joggers and others were readily willing to stop. In many cases, cyclists did not have sufficient time to stop, or were in too much of a hurry. Thus, cyclists are slightly underrepresented in these results. Staff found that posting signs (stating "Trail User Survey") near them on the trail or around blind corners was helpful in some cases, however this technique was only used a few times as it was implemented late in the study.

The survey was conducted with trail users eighteen years or older. Respondents had the option to fill out the survey themselves or have a member of the field team read it and record their answers. Most users seemed to prefer having the survey read out loud, since they often had their hands full. We developed an online survey and made cards with a link to the survey on them to hand out to users who were in a rush. However, we noted that most users either willingly took the survey on-site or did not stop long enough to even receive a card, so this option was not implemented and no online surveys were collected.

Survey staff recorded field notes during each sampling event including changes in the weather, large groups/organized events (such as a Segway Tour), and unusual events. At one site (Durand), the team noticed that at the original sampling location, many of the people they counted were simply traversing the trail to get to the beach. As a result, this sampling site was located farther down the trail to capture actual trail users. At the Scrantom Street site, only users of the designated trail were counted, not pedestrians on the other side of the street.

After collection, surveys were coded with an ID number, copied, and entered into a database. A different team member re-entered the data to identify and fix entry errors.
Trail counts were conducted over a total of 56 hours, including 2 hours for piloting the survey. The total survey effort included approximately 249 person hours (on average, three people spent about 83 hours each commuting to sites and collecting surveys). In addition to time spent in the field, approximately 70-80 person hours were spent organizing, copying, entering and summarizing results.

Results – Trail Counts

This section of the report includes information gathered by the trail counts, including totals, activity, demographics, and helmet use. Users were counted using hash marks (or a "Y" for people appearing under 18) on forms divided into 15-minute intervals (Appendix 2). Different forms were used for straight trails (screenline) and intersections (recording direction). Data was later entered into Microsoft Excel as individual entries (a separate entry for each trail user to record use type, helmet use, gender, and observer-judged age (youth or adult) for analysis. City of Rochester staff suggested grouping the results by site location. The project team agreed that it made sense to divide the results by sites 1-4 ("South"), 5-7 ("Central") and 8-12 ("North"). The Southern sites encompassed the recreational areas around Genesee Valley Park through the University of Rochester and the 19th Ward/Southwest Rochester neighborhoods. The Central sites were loosely grouped around downtown Rochester. The Northern sites included recreation and park areas near Ontario and Durand Beaches, Turning Point Park, Maplewood, and the Seneca Park Zoo.

Table 1 – Trail Count User Data by Site

Site	Total	Commute Time Total		Recreation Time Total		Times Staff Visited	Avg. People / Hr.
	#	#	%	#	%	#	#
1 - GVP West	235	99	42%	136	58%	2	58.75
2 - GVP East	362	167	46%	195	54%	2	90.50
3 - ELRR	222	109	49%	113	51%	5	22.20
4 - Ford St	195	92	47%	103	53%	2	48.75
5 - South Ave	195	100	51%	95	49%	2	48.75
6 - Cataract St	90	61	68%	29	32%	2	22.50
7 - Scrantom St	44	24	55%	20	45%	2	11.00
8 - Maplewood	112	55	49%	57	51%	2	28.00
9 - Zoo	73	36	49%	37	51%	2	18.25
10 - Turning Pt	151	37	25%	114	75%	2	37.75
11 - LOSP	137	54	39%	83	61%	2	34.25
12 - Durand	203	68	33%	135	67%	2	50.75
Total	2019	902	45%	1117	55%	27	37.39

Table 2 – Trail Count User Data Grouped by Location

Site	Total	Commute Time Total		Recreation Time Total		Times Staff Visited	Avg. People / Hr.
	#	#	%	#	%	#	#
Sites 1-4 ("South")	1014	467	46%	547	54%	11	46.09
Sites 5-7 ("Central")	329	185	56%	144	44%	6	27.42
Sites 8-12 ("North")	676	250	37%	426	63%	10	33.80
Total	2019	902	45%	1117	55%	27	37.39

The above tables include trail counts by site (Table 1) and grouped by location (Table 2), time of day (commute versus recreation), and the number of times each site was visited. "Commute" and "recreation" are used to describe the selected sampling time, and do not represent the users' purpose for the trip. The average number of people per hour was calculated to demonstrate overall density of use during sampling times. Staff counted the fewest people per hour at Sites 6 (Cataract St., 22.5), 7 (Scrantom St., 11.00), and 9 (Zoo, 18.25) (Table 1). Sites in the "Central" group had a lower density overall (27.42) than the "North" and "South" sites (Table 2). Overall there were slightly more people during recreation times than commute times with 55% (1117) and 45% (902) respectively. The largest differences were Site 12 (Durand) with 33% (68) commute and 67% (135) recreation and Site 11 (LOSP) with 39% (54) commute and 61% (83) recreation (Table 1). In general, sites in the "North" group appear to be more often used during weekend hours than during commute times (63%, 426 and 37%, 250, respectively) (Table 2).

Table 3 – Activity

Site (Overall Total)	Pedestrians		Bicycles		Other	
	#	%	#	%	#	%
1 - GVP West (N=235)	74	31%	157	67%	4	2%
2 - GVP East (N=362)	122	34%	224	62%	16	4%
3 - ELRR (N=222)	72	32%	150	68%	0	0%
4 - Ford St 9 (N=195)	70	36%	119	61%	6	3%
5 - South Ave (N=195)	78	40%	113	58%	4	2%
6 - Cataract St (N=90)	56	62%	32	36%	2	2%
7 - Scrantom St (N=44)	11	25%	33	75%	0	0%
8 - Maplewood (N=112)	42	38%	66	59%	4	4%
9 - Zoo (N=73)	28	38%	43	59%	2	3%
10 - Turning Pt (N=151)	95	63%	43	28%	13*	9%
11 - LOSP (N=137)	41	30%	94	69%	2	1%
12 - Durand (N=203)	116	57%	86	42%	1	0%
Total (N=2019)	805	40%	1160	57%	54	3%

*A Segway tour passed through the site twice, resulting in a high "other" count

.

Table 3 contains activity information gathered in the trail counts. Overall, 57% (1160) of the people seen were bicyclists, 40% (805) were pedestrians, and 3% (54) were other. The majority of trail users were on bicycles at all sites except Cataract St., Turning Point, and Durand. These results are compared to trail surveys later in this report (See *Table 12 – Activity Comparison between Counts and Surveys* on page 17).

Table 4 – Demographics

Site (Total)	Male		Female		Adult		Youth*	
	#	%	#	%	#	%	#	%
1 - GVP West (N=235)	162	69%	73	31%	220	94%	15	6%
2 - GVP East (N=362)	243	67%	119	33%	339	94%	23	6%
3 - ELRR (N=222)	147	66%	75	34%	204	92%	18	8%
4 - Ford St 9 (N=195)	130	67%	65	33%	191	98%	4	2%
5 - South Ave (N=195)	144	74%	51	26%	192	98%	3	2%
6 - Cataract St (N=90)	70	78%	20	22%	82	91%	8	9%
7 - Scrantom St (N=44)	41	93%	3	7%	43	98%	1	2%
8 - Maplewood (N=112)	70	63%	42	38%	90	80%	22	20%
9 - Zoo (N=73)	50	68%	23	32%	64	88%	9	12%
10 - Turning Pt (N=151)	104	69%	47	31%	151	100%	0	0%
11 - LOSP (N=137)	102	74%	35	26%	127	93%	10	7%
12 - Durand (N=203)	111	55%	92	45%	186	92%	17	8%
Total (N=2019)	1374	68%	645	32%	1889	94%	130	6%

*Users who appeared to be under the age of 18 were marked on the data sheet with a "Y" instead of a hash mark

Table 4 includes demographic information collected during trail counts. Overall, trail users were predominately male (68%, 1374); 32% (645) were female. There were more adults 94% (1889) than youth 6% (130). The survey team observed that approximately equal numbers of youth

were using the trail as part of a family group and by themselves. According to transportation specialists, biking tends to be a male dominated sport. It is also possible that this gender distribution was influenced by perceptions of personal safety, particularly at sites such as Scrantom St. (only 7% female).

Table 5 – Gender by Activity and Location

Pedestrians					
		Females		Males	
	N	#	%	#	%
Sites 1-4 ("South")	338	153	45%	185	55%
Sites 5-7 ("Central")	145	40	28%	105	72%
Sites 8-12 ("North")	322	135	42%	187	58%
Total	805	328	41%	477	59%

Bicyclists					
		Females		Males	
	N	#	%	#	%
Sites 1-4 ("South")	650	174	27%	476	73%
Sites 5-7 ("Central")	178	34	19%	144	81%
Sites 8-12 ("North")	332	95	29%	237	71%
Total	1160	303	26%	857	74%

The study team also looked at gender by activity (Table 5). Overall, a larger percentage of bicyclists were male (74%) than were pedestrians (59%) ($p<0.01$). Similarly, there appears to be a geographic difference in the gender ratios. There is a higher proportion of males to females at the "Central" sites than the "North" and "South" sites for both bicyclists and pedestrians. Thus, while safety concerns may contribute to the relatively low number of women using the trail, particularly in certain areas, the disproportionate number of men involved in the sport of biking likely contributes to the high overall rate of male trail users.

Table 6 – Helmet Use

Site (Total)	Helmet		No Helmet		Adult Helmet		Youth Helmet	
	#	%	#	%	#	%*	#	%*
1 - GVP West (N=157)	103	66%	54	34%	101	65%	2	100%
2 - GVP East (N=224)	147	66%	77	34%	142	65%	5	83%
3 - ELRR (N=150)	96	64%	54	36%	91	64%	5	71%
4 - Ford St 9 (N=119)	84	71%	35	29%	81	70%	3	100%
5 - South Ave (N=113)	58	51%	55	49%	58	51%	0	0%**
6 - Cataract St (N=32)	11	34%	21	66%	11	34%	0	0%**
7 - Scrantom St (N=33)	14	42%	19	58%	14	44%	0	0%**
8 - Maplewood (N=66)	46	70%	20	30%	45	73%	1	25%
9 - Zoo (N=43)	26	60%	17	40%	26	62%	0	0%**
10 - Turning Pt (N=43)	26	60%	17	40%	26	60%	0	0%**
11 - LOSP (N=94)	52	55%	42	45%	44	51%	8	100%
12 - Durand (N=86)	51	59%	35	41%	46	62%	5	42%
Total (N=1160)	714	62%	446	38%	685	61%	29	66%

* Based on total number of adults and youth, respectively (i.e., 100% (2) of youth at site 1 were wearing helmets)
**Staff counted 1 youth at both Scrantom St. (site 7) and the Zoo (site 9); no youth bicyclists were counted at sites 5 (South Ave), 6 (Cataract St.) or 10 (Turning Point Park).

Table 6 summarizes helmet information collected via trail counts. Helmet information was only collected for people on bicycles. Overall, 62% (714) of bikers wore helmets, whereas 38% (446) did not. Several sites appear to have had lower helmet usage, including Sites 5 (South Ave.) with 51% (58), 6 (Cataract St.) with 34% (11), and 7 (Scrantom St.) with 42% (14) of users wearing helmets. Of all adult bicyclists, 61% (685) wore helmets. Sixty-six percent (29) of youth on bicycles wore helmets. The lowest proportion of adults wearing helmets was at Site 6 (Cataract St.) with 34% (11). Excluding sites where we only saw one youth in total, the lowest proportion of youth wearing helmets was at Site 8 (Maplewood) with 25% (1).

Results – Trail Surveys

This section of the report summarizes information collected by the trail surveys. All information was double entered and analyzed in Microsoft Excel.

Table 7 – Gender

Site (Total Answered)	Male		Female		Times Staff Visited
	#	%	#	%	#
1 - GVP West (N=16)	10	63%	6	38%	2
2 - GVP East (N=14)	12	86%	2	14%	2
3 - ELRR (N=55)	34	62%	21	38%	5
4 - Ford St 9 (N=17)	12	71%	5	29%	2
5 - South Ave (N=21)	14	67%	7	33%	2
6 - Cataract St (N=27)	24	89%	3	11%	2
7 - Scrantom St (N=12)	11	92%	1	8%	2
8 - Maplewood (N=19)	10	53%	9	47%	2
9 - Zoo (N=7)	7	100%	0	0%	2
10 - Turning Pt (N=17)	7	41%	10	59%	2
11 - LOSP (N=17)	12	71%	5	29%	2
12 - Durand (N=14)	9	64%	5	36%	2
Total (N=236)	162	69%	74	31%	27

Of 265 people surveyed, only 236 (89%) indicated a gender. Surveys where responses were recorded by the field team had the gender section filled out automatically based on observations. However, when respondents filled the surveys out on their own, it was logistically difficult for the study team to ensure gender was completed (e.g., if several people filled out the survey and handed them all in at once).

Many more males took the survey (162, 69%) (Table 7). The higher percentage of male respondents was attributed to the higher concentration of male trail users. Generally speaking, response rates did not seem to be gender-based. Sites that did not seem to follow this trend are Site 8 (Maplewood) with 53% (10) males and 47% (9) females, and Site 10 (Turning Point) with 41% (7) male and 59% (10) females. Project staff observed more females traveling in groups along the trails than males. A gender-based comparison of safety and security responses follows the safety and security table below (page 15).

Table 8 – Race

Site (Total Answered)	White		Black		Other*	
	#	%	#	%	#	%
1 - GVP West (N=17)	13	76%	3	18%	1	6%
2 - GVP East (N=14)	11	79%	2	14%	1	7%
3 - ELRR (N=59)	53	90%	3	5%	3	5%
4 - Ford St 9 (N=17)	13	76%	4	24%	0	0%
5 - South Ave (N=24)	17	71%	6	25%	1	4%
6 - Cataract St (N=27)	18	67%	7	26%	2	7%
7 - Scrantom St (N=10)	7	70%	3	30%	0	0%
8 - Maplewood (N=15)	15	100%	0	0%	0	0%
9 - Zoo (N=7)	5	71%	1	14%	1	14%
10 - Turning Pt (N=17)	17	100%	0	0%	0	0%
11 - LOSP (N=21)	21	100%	0	0%	0	0%
12 - Durand (N=18)	15	83%	2	11%	1	6%
Total (N=246)	205	83%	31	13%	10	4%

* Includes respondents specifying a different race than those listed, those who indicated more than one race, and Asians (these were included with "Other" due to a low response rate (2%, 5).

About 93% (246) of respondents provided their race. Table 8 indicates that survey respondents were predominately White, with 205 White respondents (83%), 31 Black responses (13%), and 10 Other respondents (4%). The field team further noted in their field observations that most people on the trails were White, although this was not directly measured. Survey staff noted that Whites did not appear to be more or less likely to complete the survey than other racial groups. However, survey refusals were not recorded so this observation cannot be quantified.

Table 9 – Ethnicity

Site (Total Answered)	Non-Hispanic		Hispanic or Latino	
	#	%	#	%
1 – GVP West (N=12)	11	92%	1	8%
2 – GVP East (N=8)	7	88%	1	13%
3 – ELRR (N=28)	26	93%	2	7%
4 – Ford St 9 (N=9)	7	78%	2	22%
5 – South Ave (N=11)	10	91%	1	9%
6 – Cataract St (N=17)	14	82%	3	18%
7 – Scrantom St (N=10)	8	80%	2	20%
8 – Maplewood (N=9)	6	67%	3	33%
9 – Zoo (N=6)	5	83%	1	17%
10 – Turning Pt (N=17)	17	100%	0	0%
11 – LOSP (N=9)	8	89%	1	11%
12 – Durand (N=8)	7	88%	1	13%
Total (N=144)	126	88%	18	13%

Only about 54% (144) of people provided an ethnicity. The field team observed that many people did not see a difference between Race and Ethnicity, and felt both questions were satisfied after answering Race. Respondents were primarily Non-Hispanic (88%, 126) (Table 9).

Approximately 78% (206) of respondents provided a household income response. More than two-thirds of respondents reported household incomes over $35,000 ($35,000 - $74,999 with 28% (57) and $75,000 or more with 41% (84) (Table 10)). Fifteen percent earned under $15,0000.. When compared with U.S. Census Bureau data, the survey data indicates that the income distribution of trail users is more consistent with the Rochester, NY Metro Area than to Rochester City.

Table 10 – Income

Site (Total Answered)	Less than $10,000		$10,000 - $14,999		$15,000 - $24,999		$25,000 - $34,999		$35,000 - $74,999*		$75,000 or more	
	#	%	#	%	#	%	#	%	#	%	#	%
1 – GVP West (N=15)	1	7%	0	0%	2	13%	1	7%	3	20%	8	53%
2 – GVP East (N=11)	1	9%	0	0%	0	0%	1	9%	4	36%	5	45%
3 – ELRR (N=49)	9	18%	1	2%	3	6%	3	6%	14	29%	19	39%
4 – Ford St 9 (N=14)	3	21%	0	0%	0	0%	2	14%	3	21%	6	43%
5 – South Ave (N=15)	3	20%	1	7%	4	27%	2	13%	1	7%	4	27%
6 – Cataract St (N=22)	3	14%	1	5%	2	9%	1	5%	7	32%	8	36%
7 – Scrantom St (N=10)	4	40%	0	0%	1	10%	1	10%	2	20%	2	20%
8 – Maplewood (N=17)	0	0%	1	6%	0	0%	4	24%	6	35%	6	35%
9 – Zoo (N=4)	0	0%	0	0%	0	0%	0	0%	1	25%	3	75%
10 – Turning Pt (N=15)	0	0%	0	0%	0	0%	2	13%	5	33%	8	53%
11 – LOSP (N=19)	1	5%	1	5%	0	0%	2	11%	6	32%	9	47%
12 – Durand (N=15)	1	7%	0	0%	2	13%	1	7%	5	33%	6	40%
Total (N=206)	26	13%	5	2%	14	7%	20	10%	57	28%	84	41%
Rochester, NY Metro Area (N=410,637)**	30,519	7%	20,579	5%	44,391	11%	44,898	11%	139,242	34%	131,008	32%
Rochester, city(N=85,589)**	15,028	18%	7,402	9%	13,674	16%	11,914	14%	25,081	29%	12,490	15%

* The categories $35,000 - $39,000 and $40,000 - $74,999 were combined to $35,000 - $74,999 for comparison to 2010 U.S. Census Bureau data for Rochester, NY.

** Rochester City and Rochester, NY Metro Area data are from the U.S. Census Bureau 2006-2010 American Community Survey 5-Year Estimates, accessed at http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml

Table 11 – Activity

Site (Total Answered)	Walking		Biking		Other	
	#	%	#	%	#	%
1 - GVP West (N=18)	7	39%	11	61%	0	0%
2 - GVP East (N=16)	7	44%	7	44%	2	13%
3 - ELRR (N=63)	20	32%	38	60%	5	8%
4 - Ford St 9 (N=19)	11	58%	7	37%	1	5%
5 - South Ave (N=25)	10	40%	15	60%	0	0%
6 - Cataract St (N=29)	16	55%	13	45%	0	0%
7 - Scrantom St (N=12)	4	33%	8	67%	0	0%
8 - Maplewood (N=19)	6	32%	13	68%	0	0%
9 - Zoo (N=7)	5	71%	2	29%	0	0%
10 - Turning Pt (N=17)	11	65%	5	29%	1	6%
11 - LOSP (N=21)	11	52%	10	48%	0	0%
12 - Durand (N=19)	15	79%	4	21%	0	0%
Total (N=265)	123	46%	133	50%	9	3%

Respondents were asked to identify the activity they were engaged in at the time of the survey, disregarding ways in which the respondent uses the trail at other times. This information was also recorded by the field team on the trail user count form. Forty-six percent (123) of people surveyed were walking, 50% (133) people were biking, and 3% (9) were doing some other activity such as rollerblading, skateboarding, riding as a passenger on a bicycle, or riding in a stroller (Table 11). Individuals walking a bicycle were recorded as pedestrians. Table 12 compares screenline (non-directional) count activity records to the survey results.

Table 12 – Activity Comparison between Counts and Surveys

	Trail Counts							Trail Surveys						
Site	**N**	**Walking**		**Biking**		**Other**		**N**	**Walking**		**Biking**		**Other**	
	#	#	%	#	%	#	%	#	#	%	#	%	#	%
1 - GVP West	235	74	31%	157	67%	4	2%	18	7	39%	11	61%	0	0%
2 - GVP East	362	122	34%	224	62%	16	4%	16	7	44%	7	44%	2	13%
3 - ELRR	222	72	32%	150	68%	0	0%	63	20	32%	38	60%	5	8%
4 - Ford St 9	195	70	36%	119	61%	6	3%	19	11	58%	7	37%	1	5%
5 - South Ave	195	78	40%	113	58%	4	2%	25	10	40%	15	60%	0	0%
6 - Cataract St	90	56	62%	32	36%	2	2%	29	16	55%	13	45%	0	0%
7 - Scrantom St	44	11	25%	33	75%	0	0%	12	4	33%	8	67%	0	0%
8 - Maplewood	112	42	38%	66	59%	4	4%	19	6	32%	13	68%	0	0%
9 - Zoo	73	28	38%	43	59%	2	3%	7	5	71%	2	29%	0	0%
10 - Turning Pt	151	95	63%	43	28%	13*	9%	17	11	65%	5	29%	1	6%
11 - LOSP	137	41	30%	94	69%	2	1%	21	11	52%	10	48%	0	0%
12 - Durand	203	116	57%	86	42%	1	0%	19	15	79%	4	21%	0	0%
Total	2019	805	40%	1160	57%	54	3%	265	123	46%	133	50%	9	3%

Project staff counted 805 (40%) people walking. However, walkers comprised 46% (123) of the trail surveys, suggesting that walkers stopped to take the survey more often than bikers did (Table 12). Project staff observed through trail counts that 57% (1160) of users were biking, whereas only 50% (133) of trail survey respondents were bicyclists.

*Table 13 – What best describes the purpose of this trip (check all that apply)?**

Site (Total Answered)	Exercise		Work Commute		School		Recreation		Shopping / doing errands		Personal (medical, visiting friends, etc.)	
	#	%	#	%	#	%	#	%	#	%	#	%
1 – GVP West (N=18)	6	33%	1	6%	0	0%	16	89%	0	0%	1	6%
2 – GVP East (N=16)	10	63%	0	0%	0	0%	10	63%	0	0%	0	0%
3 – ELRR (N=63)	43	68%	0	0%	4	6%	29	46%	4	6%	2	3%
4 – Ford St 9 (N=19)	9	47%	0	0%	1	5%	8	42%	1	5%	2	11%
5 – South Ave (N=25)	12	48%	0	0%	1	4%	11	44%	1	4%	6	24%
6 – Cataract St (N=29)	14	48%	1	3%	2	7%	18	62%	2	7%	4	14%
7 – Scrantom St (N=12)	3	25%	0	0%	1	8%	3	25%	1	8%	1	8%
8 – Maplewood (N=19)	11	58%	0	0%	0	0%	12	63%	0	0%	1	5%
9 – Zoo (N=7)	4	57%	0	0%	0	0%	2	29%	0	0%	2	29%
10 – Turning Pt (N=17)	8	47%	0	0%	0	0%	12	71%	0	0%	0	0%
11 – LOSP (N=21)	17	81%	0	0%	0	0%	12	57%	0	0%	3	14%
12 – Durand (N=19)	14	74%	0	0%	0	0%	11	58%	0	0%	2	11%
Total (N=265)	151	57%	2	1%	9	3%	144	54%	9	3%	24	9%

* Multiple responses allowed

Table 13 summarizes responses to the question, "What best describes the purpose of this trip?" which had a 100% response rate.

Overall, it appears that the majority of people were using the trails for exercise and recreation, with 57% (151) and 54% (144) respectively; many respondents selected both, indicating that they enjoy exercising outdoors on the trails. The next most frequent response was "Personal" (9%, 24). "School" and "Shopping / Errands" had 3% (9) each, and "Work Commute" had the lowest selection with only 1% (2).

Table 14 – If you were not using the trail for this trip, how would you be traveling?

Site (Total Answered)*	Car		Carpool		Transit (Bus)		Would not make this trip**	
	#	%	#	%	#	%	#	%
1 - GVP West (N=14)	8	57%	0	0%	1	7%	5	36%
2 - GVP East (N=14)	1	7%	0	0%	1	7%	12	86%
3 - ELRR (N=48)	15	31%	0	0%	6	13%	27	56%
4 - Ford St 9 (N=12)	2	17%	1	8%	1	8%	8	67%
5 - South Ave (N=18)	6	33%	0	0%	6	33%	6	33%
6 - Cataract St (N=26)	11	42%	0	0%	2	8%	13	50%
7 - Scrantom St (N=11)	2	18%	0	0%	4	36%	5	45%
8 - Maplewood (N=15)	2	13%	0	0%	0	0%	13	87%
9 - Zoo (N=7)	1	14%	0	0%	0	0%	6	86%
10 - Turning Pt (N=13)	5	38%	0	0%	0	0%	8	62%
11 - LOSP (N=18)	9	50%	0	0%	0	0%	9	50%
12 - Durand (N=17)	2	12%	0	0%	0	0%	15	88%
Total (N=213)	64	30%	1	0%	21	10%	127	60%

* "Don't Know" responses are excluded from this table

** Respondents stating they would exercise somewhere else or use a different trail were included in "Would not make this trip."

Table 14 summarizes responses to the question, "If you were not using the trail for this trip, how would you be traveling?" with a response rate of 80% (213). The most common response was "Would not make this trip" with 60% (127); the lowest response rate was for Carpool with less than 0.5% (1). This question aimed to identify whether other transportation methods were being replaced or supplemented by the trail, and was therefore geared towards trail users who had a destination. The high response rate for "Would not make this trip" reinforces that the majority of people using the trail did not have a destination. This is consistent with responses to the trip purpose question, where a majority of participants reported using the trail for exercise and/or recreation.

*Table 15 – In the past month, about how often have you used this trail (check all that apply)?**

Site (Total Answered)	First time		0 - 5 times		6 – 10 times		11 – 20 times		21 – 29 times		Daily	
	#	%	#	%	#	%	#	%	#	%	#	%
1 - GVP West (N=18)	4	22%	4	22%	2	11%	2	11%	1	6%	5	28%
2 - GVP East (N=16)	2	13%	2	13%	4	25%	2	13%	2	13%	4	25%
3 - ELRR (N=62)	11	18%	18	29%	8	13%	11	18%	6	10%	8	13%
4 - Ford St 9 (N=19)	2	11%	2	11%	5	26%	2	11%	2	11%	6	32%
5 - South Ave (N=24)	2	8%	5	21%	3	13%	4	17%	2	8%	8	33%
6 - Cataract St (N=29)	7	24%	10	34%	4	14%	3	10%	2	7%	3	10%
7 - Scrantom St (N=12)	2	17%	2	17%	4	33%	1	8%	1	8%	2	17%
8 - Maplewood (N=18)	2	11%	8	44%	0	0%	5	28%	0	0%	3	17%
9 - Zoo (N=7)	1	14%	1	14%	1	14%	1	14%	1	14%	2	29%
10 - Turning Pt (N=17)	6	35%	5	29%	3	18%	1	6%	0	0%	2	12%
11 - LOSP (N=21)	1	5%	6	29%	6	29%	4	19%	0	0%	4	19%
12 - Durand (N=19)	1	5%	9	47%	3	16%	2	11%	1	5%	3	16%
Total (N=262)	41	16%	72	27%	43	16%	38	15%	18	7%	50	19%

*Multiple answers allowed

Table 15 summarizes responses to the survey question, "In the past month, about how often have you used this trail?" with a response rate of 99% (262). The most common response was "0 – 5 times" with 27% (72) and "Daily" with 19% (50). At Site 10 (Turning Point), however, "First Time" had the largest response with 35% (6); "Daily" was the most common response at Site 5 (South Ave.) with 33% (8).

*Table 16 – Please check the seasons in which you use the trail**

Site (Total Answered)	All year**		Summer		Fall		Winter		Spring	
	#	%	#	%	#	%	#	%	#	%
1 - GVP West (N=17)	3	18%	12	71%	10	59%	0	0%	9	53%
2 - GVP East (N=16)	6	38%	10	63%	7	44%	1	6%	6	38%
3 - ELRR (N=62)	18	29%	44	71%	29	47%	0	0%	28	45%
4 - Ford St 9 (N=19)	7	37%	11	58%	10	53%	1	5%	7	37%
5 - South Ave (N=23)	9	39%	14	61%	13	57%	0	0%	14	61%
6 - Cataract St (N=27)	12	44%	14	52%	7	26%	2	7%	8	30%
7 - Scrantom St (N=12)	3	25%	9	75%	5	42%	1	8%	7	58%
8 - Maplewood (N=19)	8	42%	10	53%	10	53%	0	0%	10	53%
9 - Zoo (N=7)	4	57%	3	43%	0	0%	1	14%	0	0%
10 - Turning Pt (N=17)	4	24%	12	71%	7	41%	1	6%	5	29%
11 - LOSP (N=21)	11	52%	10	48%	6	29%	0	0%	7	33%
12 - Durand (N=19)	4	21%	15	79%	9	47%	1	5%	9	47%
Total (N=259)	89	34%	164	63%	113	44%	8	3%	110	42%

* Multiple answers allowed
**Respondents who selected all seasons were recorded only as "All Year."

Table 16 includes all data collected for the question, "Please check the seasons in which you use the trail." with a response rate of 98% (259). Trails are used most often in summer with 63% (164). Fall, spring and all year were all selected with about the same frequency with 44% (113), 42% (110), and 34% (89), respectively. Some respondents (3%, 8) who do not use the trail year-round do use it in the winter. The most "All Year" responses were recorded at Site 9 (Zoo) with 57% (4) and Site 6 (Cataract St.) with 44% (12).

*Table 17 – How did you get to this trail today (check all that apply)?**

Site (Total Answered)	Drove		Walked		Biked		Took the bus	
	#	%	#	%	#	%	#	%
1 - GVP West (N=18)	5	28%	3	17%	11	61%	0	0%
2 - GVP East (N=16)	6	38%	4	25%	6	38%	0	0%
3 - ELRR (N=63)	11	17%	16	25%	31	49%	2	3%
4 - Ford St 9 (N=19)	2	11%	8	42%	7	37%	0	0%
5 - South Ave (N=25)	1	4%	9	36%	15	60%	0	0%
6 - Cataract St (N=29)	4	14%	11	38%	13	45%	1	3%
7 - Scrantom St (N=12)	2	17%	3	25%	8	67%	1	8%
8 - Maplewood (N=19)	6	32%	2	11%	11	58%	0	0%
9 - Zoo (N=7)	0	0%	5	71%	2	29%	0	0%
10 - Turning Pt (N=17)	11	65%	4	24%	2	12%	0	0%
11 - LOSP (N=21)	7	33%	8	38%	7	33%	0	0%
12 - Durand (N=19)	14	74%	3	16%	2	11%	0	0%
Total (N=265)	69	26%	76	29%	115	43%	4	2%

***Multiple answers allowed

Table 17 summarizes responses to the question "How did you get to the trail today?" which had a 100% (265) response rate. The majority of people (43%, 115) biked to the trail. Others walked (29%, 76) or drove (26%, 69); few took the bus (2%, 4). However, more people walked to sites 4 (Ford St., 42%, 8) and 9 (Zoo, 71%, 5). This difference may be a result of trail use, or may indicate that fewer bicyclists stopped for surveys at these locations.

It is likely that those biking or walking on the trail are likely to use different methods of transport to get to the trail. The following table breaks down transportation to the trail by activity type.

Table 18 – How did you get to this trail today (check all that apply)? (Walkers)

Site	Drove		Walked		Biked		Took the bus		Other	
	#	%	#	%	#	%	#	%	#	%
1 - GVP West (N=7)	5	71%	2	29%	0	0%	0	0%	0	0%
2 - GVP East (N=7)	3	43%	4	57%	0	0%	0	0%	0	0%
3 – ELRR (N=20)	6	30%	14	70%	0	0%	0	0%	0	0%
4 - Ford St (N=11)	1	9%	8	73%	1	9%	0	0%	2	18%
5 - South Ave (N=10)	1	10%	9	90%	0	0%	0	0%	0	0%
6 - Cataract St (N=16)	4	25%	11	69%	0	0%	1	6%	0	0%
7 - Scrantom St (N=4)	1	25%	2	50%	0	0%	1	25%	0	0%
8 – Maplewood (N=6)	4	67%	2	33%	0	0%	0	0%	0	0%
9 – Zoo (N=5)	0	0%	5	100%	0	0%	0	0%	0	0%
10 - Turning Pt (N=11)	7	64%	4	36%	0	0%	0	0%	0	0%
11 – LOSP (N=11)	3	27%	8	73%	0	0%	0	0%	0	0%
12 – Durand (N=15)	12	80%	3	20%	0	0%	0	0%	0	0%
Total (N=123)	47	38%	72	59%	1	1%	2	2%	2	2%

Table 19 – How did you get to this trail today (check all that apply)? (Bikers)

Site	Drove		Walked		Biked		Took the bus		Other	
	#	%	#	%	#	%	#	%	#	%
1 - GVP West (N=11)	0	0%	1	9%	11	100%	0	0%	1	9%
2 - GVP East (N=7)	1	14%	0	0%	6	86%	0	0%	0	0%
3 – ELRR (N=38)	5	13%	0	0%	31	82%	2	5%	0	0%
4 - Ford St (N=7)	1	14%	0	0%	6	86%	0	0%	0	0%
5 - South Ave (N=15)	0	0%	0	0%	15	100%	0	0%	0	0%
6 - Cataract St (N13)	0	0%	0	0%	13	100%	0	0%	0	0%
7 - Scrantom St (N=8)	1	13%	1	13%	8	100%	0	0%	0	0%
8 – Maplewood (N=13)	2	15%	0	0%	11	85%	0	0%	0	0%
9 – Zoo (N=2)	0	0%	0	0%	2	100%	0	0%	0	0%
10 - Turning Pt (N=5)	3	60%	0	0%	2	40%	0	0%	0	0%
11 – LOSP (N=10)	4	40%	0	0%	7	70%	0	0%	0	0%
12 - Durand	2	50%	0	0%	2	50%	0	0%	0	0%
Total	19	14%	2	2%	114	86%	2	2%	1	1%

When results are broken down by activity, it appears as though more walkers (38%, 47) drive to access the trails than bikers (14%, 19) (Tables 18 and 19). The majority of bikers traveled to the trail by bicycle (86%, 114) (Table 19).

Table 20 – Average Distance Traveled to Trail by Mode of Transportation

	Drove	Walked	Biked	Took the bus
Average Distance Traveled to Trail (miles)	9.21	1.18	4.39	9.17

Table 20 includes the averages of answers collected for the question, "How far did you travel to get to the trail today?" People who drove traveled the farthest at 9.21 miles on average, followed by people who took the bus (9.17 miles), bikers (4.39 miles), and walkers (1.18 miles).

Table 21 – Average Time on Trip by Activity

	Walked	Biked	Other
Average Time on Trip (minutes)	61.45	75.04	44.44

Table 21 includes the averages of answers collected for the question, "How long will you be on this trip?" Overall, bikers were on their trips the longest (for 75.04 minutes on average), followed by walkers (61.45 minutes) and others (44.44 minutes). The CDC recommends that adults engage in moderate-intensity physical activity for 30 minutes or more on 5 or more days of the week. On average, trail users are exercising longer than the CDC recommendation of at least 30 minutes.

Table 22 – Safety and Security

Site (Overall Total)	Excellent		Good		Fair		Poor		Don't Know	
	#	%	#	%	#	%	#	%	#	%
1 - GVP West (N=18)	3	17%	11	61%	3	17%	0	0%	1	6%
2 - GVP East (N=16)	5	31%	8	50%	3	19%	0	0%	0	0%
3 - ELRR (N=62)	8	13%	34	55%	15	24%	0	0%	5	8%
4 - Ford St 9 (N=19)	3	16%	13	68%	3	16%	0	0%	0	0%
5 - South Ave (N=25)	5	20%	14	56%	5	20%	0	0%	1	4%
6 - Cataract St (N=29)	8	28%	16	55%	5	17%	0	0%	0	0%
7 - Scrantom St (N=12)	2	17%	8	67%	1	8%	0	0%	1	8%
8 - Maplewood (N=19)	4	21%	11	58%	2	11%	0	0%	2	11%
9 - Zoo (N=7)	0	0%	3	43%	3	43%	0	0%	1	14%
10 - Turning Pt (N=17)	5	29%	6	35%	3	18%	0	0%	3	18%
11 - LOSP (N=21)	8	38%	9	43%	1	5%	2	10%	1	5%
12 - Durand (N=18)	7	39%	9	50%	2	11%	0	0%	0	0%
Total (N=263)	58	22%	142	54%	46	17%	2	1%	15	6%

Responses to the question "In your opinion the safety and security along this trail is…," which had a 99% response rate (263), are summarized in Table 22. Most (54%, 142) trail users identified the safety and security along the section of trail they were on as "Good," followed by "Excellent" (22%, 58) and "Fair" (17%, 46). Very few users (1%, 2) found the safety and security where they were traveling to be "Poor," while some were not sure – 6% (15) responded with "Don't Know." "Excellent" was most frequently selected at Sites 12 (Durand) with 39% (7) and 11 (LOSP) with 38% (8). Interestingly, the only site where respondents answered "Poor" was also LOSP (10%, 2). "Fair" was most commonly selected at Site 9 (Zoo) with 443% (3). Considering anecdotal reports from community members regarding crime in certain neighborhoods, the study team considered safety and security as a potential contributor to the unequal gender distribution of trail users. Tables 23 and 24 summarize safety and security responses by gender.

Table 23 – Safety and Security by Gender: Males

Site	Excellent		Good		Fair		Poor		Don't know	
	#	%	#	%	#	%	#	%	#	%
1 - GVP West (N=10)	2	20%	6	60%	1	10%	0	0%	1	10%
2 - GVP East (N=12)	4	33%	6	50%	2	17%	0	0%	0	0%
3 – ELRR (N=34)	5	15%	16	47%	11	32%	0	0%	2	6%
4 - Ford St (N=12)	3	25%	8	67%	1	8%	0	0%	0	0%
5 - South Ave (N=14)	3	21%	6	43%	4	29%	0	0%	1	7%
6 - Cataract St (N=24)	7	29%	13	54%	4	17%	0	0%	0	0%
7 - Scrantom St (N=11)	2	18%	8	73%	0	0%	0	0%	1	9%
8 – Maplewood (N=10)	3	30%	7	70%	0	0%	0	0%	0	0%
9 – Zoo (N=7)	0	0%	3	43%	3	43%	0	0%	1	14%
10 - Turning Pt (N=7)	3	43%	2	29%	2	29%	0	0%	0	0%
11 – LOSP (N=12)	7	58%	4	33%	1	8%	0	0%	0	0%
12 – Durand (N=9)	3	33%	5	56%	1	11%	0	0%	0	0%
Total (N=162)	42	26%	84	52%	30	19%	0	0%	6	4%

Table 24 – Safety and Security by Gender: Females

Site	Excellent		Good		Fair		Poor		Don't know	
	#	%	#	%	#	%	#	%	#	%
1 - GVP West (N=6)	0	0%	4	67%	2	33%	0	0%	0	0%
2 - GVP East (N=2)	0	0%	1	50%	1	50%	0	0%	0	0%
3 – ELRR (N=20)	3	15%	12	60%	3	15%	0	0%	2	10%
4 - Ford St (N=5)	0	0%	4	80%	1	20%	0	0%	0	0%
5 - South Ave (N=7)	1	14%	6	86%	0	0%	0	0%	0	0%
6 - Cataract St (N=3)	1	33%	1	33%	1	33%	0	0%	0	0%
7 - Scrantom St (N=1)	0	0%	0	0%	1	100%	0	0%	0	0%
8 – Maplewood (N=9)	1	11%	4	44%	2	22%	0	0%	2	22%
9 – Zoo (N=0)	0	0%	0	0%	0	0%	0	0%	0	0%
10 - Turning Pt (N=10)	2	20%	4	40%	1	10%	0	0%	3	30%
11 – LOSP (N=5)	1	20%	2	40%	0	0%	2	40%	0	0%
12 – Durand (N=4)	1	25%	2	50%	1	25%	0	0%	0	0%
Total (N=72)	10	14%	40	56%	13	18%	2	3%	7	10%

Females accounted for only 20% of those who reported that the safety and security along the trails is "Excellent". Looking within each gender, a greater proportion of males (26%, 42) selected "Excellent," while only 14% (10) of females did. Although both males and females selected "Good" (52% and 56%, respectively) and "Fair" (19% and 18%, respectively) at about the same frequency, no males selected "Poor" compared to 2% (3) of females. Females also more frequently answered that they "Don't Know" about the safety and security of the trail than males (10% versus 4%, respectively).

Twenty-two percent (57) of the respondents selected "Personal Safety" as at least one of their reasons for using that particular trail, but this may indicate either that the trail is safer than riding

on a road or that they are not concerned about crime in this area (Table 25). Overall the most desirable features appeared to be "Scenic Qualities" with 65% (170) of respondents selecting it, followed by "Convenient Route" (46%, 119), and "No Cars" (35%, 92). "Connection to Transit" appeared to be the lowest contributor with 1% (2). Site 6 (Cataract St.) is one exception to "Convenient Route." It is not surprising that only 14% (4) selected this feature at Site 6, which currently serves as more of a 'destination' trail. Visitors to this site often walk out onto the Pont de Rennes bridge to view the falls, but there is limited connectivity on the east side of the river with an unclearly marked trail.

Sites where "Scenic Qualities" was least often selected were Sites 7 (Scrantom St) with 33% (4) and 9 (Zoo) with 29% (2). "Personal Safety" was selected most often at Site 2 (GVP East, 60%, 9), and least often at Site 10 (Turning Pt, 12%, 2).

*Table 25 – Why This Trail?**

Site (Total Answered)	Accessible / no stairs		Scenic qualities		Less crowded		Personal safety		Level / flat		Convenient route		Wider lanes / path		Bike lanes		Heard about it		Connects to transit (bus)		No cars		Other	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1 - GVP West (N=18)	3	17%	13	72%	3	17%	5	28%	6	33%	14	78%	3	17%	4	22%	2	11%	1	6%	6	33%	2	11%
2 - GVP East (N=15)	3	20%	11	73%	7	47%	9	60%	3	20%	11	73%	3	20%	4	27%	0	0%	0	0%	7	47%	2	13%
3 - ELRR (N=61)	11	18%	47	77%	29	48%	10	16%	13	21%	26	43%	10	16%	19	31%	3	5%	0	0%	28	46%	5	8%
4 - Ford St 9 (N=19)	2	11%	10	53%	10	53%	7	37%	8	42%	11	58%	5	26%	2	11%	1	5%	0	0%	11	58%	2	11%
5 - South Ave (N=25)	3	12%	16	64%	3	12%	4	16%	2	8%	16	64%	3	12%	9	36%	0	0%	1	4%	12	48%	1	4%
6 - Cataract St (N=29)	5	17%	15	52%	4	14%	4	14%	2	7%	4	14%	2	7%	4	14%	0	0%	0	0%	5	17%	4	14%
7 - Scrantom St (N=12)	5	42%	4	33%	0	0%	3	25%	0	0%	3	25%	1	8%	2	17%	0	0%	0	0%	2	17%	3	25%
8 - Maplewood (N=18)	2	11%	13	72%	6	33%	4	22%	3	17%	8	44%	4	22%	4	22%	3	17%	0	0%	5	28%	3	17%
9 - Zoo (N=7)	2	29%	2	29%	1	14%	1	14%	0	0%	2	29%	0	0%	0	0%	0	0%	0	0%	3	43%	1	14%
10 - Turning Pt (N=17)	2	12%	8	47%	4	24%	2	12%	1	6%	7	41%	2	12%	1	6%	4	24%	0	0%	1	6%	8	47%
11 - LOSP (N=21)	2	10%	17	81%	7	33%	4	19%	2	10%	9	43%	4	19%	4	19%	1	5%	0	0%	7	33%	3	14%
12 - Durand (N=18)	0	0%	14	78%	1	6%	4	22%	2	11%	8	44%	4	22%	2	11%	0	0%	0	0%	5	28%	4	22%
Total (N=260)	40	15%	170	65%	75	29%	57	22%	42	16%	119	46%	41	16%	55	21%	14	5%	2	1%	92	35%	38	15%

* Multiple answers allowed

*Table 26 – Improvements?**

Site (Total Answered)	Wider Path		Better surface		Better street crossing		More shade trees		Benches		Access to shops, etc.		Better maintenance		Signs		Better lighting		Plowing in winter		Nothing		Other	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1 - GVP West (N=17)	1	6%	2	12%	0	0%	0	0%	3	18%	3	18%	3	18%	2	12%	4	24%	2	12%	3	18%	5	29%
2 - GVP East (N=15)	0	0%	4	27%	2	13%	4	27%	2	13%	0	0%	4	27%	0	0%	1	7%	2	13%	5	33%	1	7%
3 - ELRR (N=62)	3	5%	20	32%	3	5%	10	16%	10	16%	1	2%	15	24%	11	18%	8	13%	16	26%	11	18%	17	27%
4 - Ford St (N=17)	2	12%	3	18%	0	0%	2	12%	3	18%	1	6%	4	24%	0	0%	2	12%	5	29%	3	18%	5	29%
5 - South Ave (N=25)	2	8%	7	28%	4	16%	4	16%	6	24%	1	4%	5	20%	3	12%	6	24%	5	20%	3	12%	9	36%
6 - Cataract St (N=28)	2	7%	3	11%	2	7%	3	11%	1	4%	1	4%	7	25%	4	14%	2	7%	3	11%	10	36%	6	21%
7 - Scrantom St (N=11)	0	0%	0	0%	1	9%	1	9%	1	9%	0	0%	0	0%	2	18%	2	18%	1	9%	5	45%	2	18%
8 - Maplewood (N=19)	0	0%	7	37%	0	0%	0	0%	1	5%	0	0%	3	16%	2	11%	2	11%	1	5%	3	16%	7	37%
9 - Zoo (N=7)	0	0%	1	14%	2	29%	1	14%	0	0%	0	0%	2	29%	0	0%	1	14%	0	0%	2	29%	2	29%
10 - Turning Pt (N=17)	1	6%	0	0%	0	0%	0	0%	2	12%	0	0%	2	12%	1	6%	2	12%	1	6%	7	41%	10	59%
11 - LOSP (N=18)	1	6%	2	11%	0	0%	2	11%	1	6%	0	0%	0	0%	3	17%	2	11%	2	11%	3	17%	7	39%
12 - Durand (N=19)	1	5%	0	0%	1	5%	4	21%	4	21%	1	5%	4	21%	1	5%	1	5%	3	16%	3	16%	10	53%
Total (N=255)	13	5%	49	19%	15	6%	31	12%	34	13%	8	3%	49	19%	29	11%	33	13%	41	16%	58	23%	81	32%

* Multiple answers allowed

*Table 27 – Would Use Trail More Often If…**

Site (Overall Total)	I had more time		I did not have to travel with small children		It was easier to cross major streets		Places weren't too far away		It was better connected to other places		I felt safer / more secure		I didn't have things to carry		The trail was in better condition		I normally take a different trail		I already use this trail as often as I want (I would not use it more often)		Other	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1 - GVP West (N=17)	9	53%	0	0%	0	0%	3	18%	1	6%	1	6%	0	0%	1	6%	0	0%	2	12%	5	29%
2 - GVP East (N=16)	7	44%	1	6%	1	6%	3	19%	1	6%	1	6%	0	0%	0	0%	0	0%	1	6%	5	31%
3 - ELRR (N=59)	22	37%	0	0%	1	2%	1	2%	6	10%	7	12%	1	2%	3	5%	6	10%	7	12%	22	37%
4 - Ford St 9 (N=18)	7	39%	0	0%	0	0%	0	0%	1	6%	1	6%	0	0%	1	6%	0	0%	1	6%	9	50%
5 - South Ave (N=24)	8	33%	0	0%	2	8%	0	0%	2	8%	3	13%	1	4%	2	8%	0	0%	1	4%	10	42%
6 - Cataract St (N=28)	10	36%	0	0%	2	7%	0	0%	1	4%	2	7%	1	4%	1	4%	0	0%	5	18%	9	32%
7 - Scrantom St (N=12)	3	25%	0	0%	1	8%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	3	25%	5	42%
8 - Maplewood (N=18)	3	17%	0	0%	2	11%	0	0%	3	17%	1	6%	0	0%	0	0%	0	0%	4	22%	10	56%
9 - Zoo (N=7)	3	43%	0	0%	1	14%	0	0%	1	14%	0	0%	0	0%	1	14%	0	0%	1	14%	4	57%
10 - Turning Pt (N=17)	2	12%	1	6%	0	0%	1	6%	1	6%	0	0%	0	0%	0	0%	0	0%	4	24%	9	53%
11 - LOSP (N=19)	7	37%	0	0%	0	0%	0	0%	2	11%	3	16%	0	0%	0	0%	1	5%	2	11%	8	42%
12 - Durand (N=19)	11	58%	0	0%	0	0%	0	0%	2	11%	1	5%	1	5%	1	5%	1	5%	2	11%	4	21%
Total (N=254)	92	36%	2	1%	10	4%	8	3%	21	8%	20	8%	4	2%	10	4%	8	3%	33	13%	100	39%

*Multiple answers allowed.

About 96% (255) responded to the question, “What would you like to see improved along this trail?” Overall, the most frequently given responses were “Other” with 32% (81), “Nothing” with 23% (58), “Better Surface” with 20% (50), and “Better Maintenance” with 19% (49) (Table 26). The fewest people responded that they would like to see improvements such as “Access to Shops, etc.” (3%, 8), “Better Street Crossings” (6%, 15), or a “Wider Path” (5%, 13).

“Other” improvements were most often suggested at Site 10 (Turning Point, 59%, 10), and least often at Site 2 (GVP East, 7%, 1). The most frequently given “Other” responses included “bathrooms,” “water fountains,” and “trash cans.” “Nothing,” was most frequently selected at Site 5 (Scrantom St) with 45% (5) and least frequently at Site 5 (South Ave) with 12% (3). Sites 8 (Maplewood), 3 (ELRR) and 5 (South Ave.) were sites where respondents most often stated that they would like the surface to be improved (37%, 32% and 28%, respectively). Users at Site 10 (Turning Point) appear to be satisfied with the trail surface, as none selected ”Better Surface” for improvements they’d like to see that that site. With respect to trail maintenance, users at Site 2 (GVP East) most frequently selected that this could be improved (27%, 4), while users at Site 7 (Scrantom St.) seem most content with current maintenance (no respondents selected “Better Maintenance” at this site).

Ninety-six percent (254) of respondents answered the question “I would use the trail more often if…” Overall, the most common responses were “Other” with 39% (100) and “I Had More Time” with 36% (92) (Table 27). Most respondents did not have issues with transporting objects or traveling with small children; only 2% (4) selected “I didn’t have things to carry,” while only 1% (2) selected “I did not have to travel with small children.”

Lastly, the survey asked bicyclists about their helmet use. Approximately half reported wearing a helmet (53%, 76) (Table 28). Of those who were wearing a helmet, the vast majority did so to protect themselves in the event of a crash (97%, 70) (Table 29). Others also stated that they wore a helmet because it’s the law (11%, 8) and to set a good example for children (28%, 20). Users who reported they were not wearing a helmet were also asked to provide a reason. Of those who did not wear a helmet, 39% (27) did not own one, but only 3% (2) participants stated that helmets are too expensive. Some of the more common reasons for not wearing a helmet included the belief that helmets are not needed for some trips (23%, 16), it being too hot outside to wear one (17%, 12), and respondents simply forgetting to wear it (12%, 8) (Table 30).

Table 28 – Helmet Use

Site (overall total)			No Helmet	
	#	%	#	%
1 - GVP West (N=11)	4	36%	7	64%
2 - GVP East (N=7)	4	57%	3	43%
3 – ELRR (N=43)	25	58%	18	42%
4 - Ford St (N=7)	5	71%	2	29%
5 - South Ave (N=16)	6	38%	10	63%
6 - Cataract St (N=18)	5	28%	13	72%
7 - Scrantom St (N=8)	6	75%	2	25%
8 – Maplewood (N=13)	10	77%	3	23%
9 – Zoo (N=3)	1	33%	2	67%
10 - Turning Pt (N=5)	5	100%	0	0%
11 – LOSP (N=9)	3	33%	6	67%
12 – Durand (N=4)	2	50%	2	50%
Total (N=144)	76	53%	68	47%

Table 29 – Reasons for Wearing a Helmet

Reason	# (N=72)	%
To protect myself in case of a crash	70	97%
It's the law	8	11%
To set a good example for children	20	28%
Other	2	3%

Table 30 – Reasons for Not Wearing a Helmet

Reason	# (N=69)	%
I don't own one	27	39%
I forgot to wear it	8	12%
I have one but it doesn't fit	1	1%
They're too expensive	2	3%
It's too hot to wear one	12	17%
I don't like how it looks	7	10%
I don't like what it does to my hair	6	9%
I don't need it right now (short trip)	16	23%
Helmets don't protect you	3	4%
Other	21	30%

Discussion

There are several limitations to this data. In particular, the number of surveys conducted (265) and the timing of field work limit the extent to which the results can be generalized to overall trail users. Our field work took place during fair weather summer days with a limited number of visits to each site, and therefore does not necessarily reflect overall trail usage. Our goal was not to get a representative sample of trail users or to project total usage; rather, this data is most useful to get insights into patterns of trail use and trail users' opinions as a basis for future work.

As noted above, this survey was conducted in part to gain insights into how waterfront trails currently contribute to or detract from the community's health, and how future changes might affect health. Below, we summarize initial implications for the trails' impacts on physical activity, physical safety (crime), and stress. Implications of future actions are of course limited by the fact that our data comes from current trail users; we did not ask non-trail users about changes that might induce them to use the trail system in the future.

Physical Activity

A preliminary analysis indicates the majority of people using the trails are doing so for exercise and recreation. Trail users are on average achieving 30 minutes or more of exercise when using the trails. Also considering that about 25% of users reported using this resource several times each month, and over a third reported using the trails year round, it appears as though this resource is helping residents of Rochester achieve the recommended weekly levels of physical activity. The study team plans to further analyze this trend by gender, age, race and income to see if the trail is providing a significant physical activity outlet for any underserved populations, or whether there is opportunity to expand trail use for any of these vulnerable residents.

With respect to the volume of trail use, people seem to be most attracted by scenery along the trail, separation from cars, and convenience. Improving scenery, connecting trails and providing more access points, and changing routes or improving crossings where the trail currently runs along or across streets could have a positive impact on the number of trail users. Changes in transit access to trails appear to be the smallest contributor to trail use.
Interestingly, about a third of participants stated that there do not need to be any changes made to the existing trails. Similarly, most of the responses regarding the frequency of trail use relate to factors beyond the City's control, such as "more time." However, there are some changes the City could make that might increase the frequency of trail use or enjoyment by current users. For example, those who listed "Other" when answering about frequency of use provided options such as "if I lived closer" and "the trail was better connected." Better connectivity in the "Other" category refers more to trail continuity than the trail's proximity to other locations (which was a separate option). Anecdotally, continuity appeared to be the biggest issue within City limits, particularly downtown. Responses related to proximity to the trail suggest that if more trail access points were available, users would be better able to access the trails and destinations on the other end. Along these lines, project staff were surprised to find that walkers traveled an average of 1.18 miles to the trails they were using, which is more than twice the "usershed" distance (how far people will travel to use a trail or park) of about half a mile commonly used by transportation professionals. This suggests that the Genesee Riverway Trail is a destination for

users who are willing to travel relatively long distances to access its scenic qualities for recreation.

A recommendation to expand access points along the trail and improve connectivity is also supported by the result that about 1% (2) of respondents reported that they were using the trail for a work commute, and only 12% (33) were using it for running errands or other personal reasons related to accessing a specific location. While it is possible these results are biased in that commuters may not have time to stop for a survey, they do suggest one strategy the City can employ to increase trail use. Other strategies may be to improve overall maintenance and maintenance, as about a fifth of participants felt these could be improved.

Physical Safety

City staff and community stakeholders have noted that perceptions about crime and threats to physical safety may be a barrier to trail use. While users are attracted by natural scenery, the promotion of a wooded environment can include trail spots that are secluded and hence perceived to be dangerous. Although our preliminary analysis does not demonstrate a clear pattern regarding trail users' perceptions of safety, there appear to be certain site-specific safety concerns, such as at Site 9 (Zoo). Project staff also heard numerous anecdotal reports regarding concerns for personal safety restricting physical activity in certain neighborhoods.

Our survey and count data provide some support for this observation. The unequal distribution of males and females on the trail could reflect women's greater concerns about safety. Additionally, male trail users may rate the safety and security along trails more positively than females. This suggests that security concerns may prevent women from using the trails more than men. However, it is important to remember that surveys were conducted only with current trail users. Further investigation into the extent of concerns about safety and security along the GRT as a barrier to trail use may be warranted.

Police records do not support the perception of high crime rates along the City's trails. Better documentation and communication about the actual level of crime on the trail might help correct the public perception. Similarly, the Rochester Police Department and 911 Center could be asked to provide incident reports and calls for service from trail users and map the incidents to see where problems, if any, actually exist. Some current local efforts in Rochester also encourage the use of CPTED (Crime Prevention Through Environmental Design) principles in new and redevelopment projects. Incorporating CPTED principles into LWRP plans, particularly those pertaining to the trail system, may also help address perceived crime and safety issues.

Increasing trail usage may help to reduce actual and perceived crime. For example, careful trail design (such as improving visibility or clearing brush) can increase users' perception of safety and minimize opportunities for crime along trails. Decreased crime/violence increases personal safety, decreases physical injuries, decreases stress, and increases physical activity by increasing the number of people who use the trails.

Another opportunity for improving physical safety relates to accident-related injuries. Only about half of bicyclists surveyed were wearing helmets to protect themselves in the event of a crash.

Reasons given for why users do not wear helmets suggests that users believe they are safe without one, or that users may not fully grasp the risk posed. This suggests there is also room for additional education surrounding the importance of helmet use. This finding is less likely to pertain to the LWRP, but is important for other local efforts to improve safety.

Stress

Studies have demonstrated that increased stress can have numerous health consequences.[4] Trail use can influence stress and its associated health impacts in numerous ways. For example, increased opportunities for recreation and physical activity may reduce stress levels. Likewise, social factors such as community cohesion and personal safety can affect stress levels of individuals. Trails in a community may influence these social factors by promoting interactions between neighbors.

While a majority of people using the trails are doing so for exercise and recreation, these opportunities may also be helping to alleviate stress in the community. Changes to the trail system have the potential to positively or negatively impact stress levels, and should be considered if changes are made. For example, some members of the PLEX neighborhood identified an increase in the number of access points to the trail as a desired change, while others expressed concerns related to safety and security from such a change. If stress is introduced by an increased perception of crime, it has the potential to cause more negative health consequences than the potential health benefits of increased used.

Next Steps

This report presents a preliminary analysis of the data collected during the summer of 2012. The next steps include conducting statistical tests to identify significant results, and further analysis of implications for the LWRP. Additional analysis will particularly focus on differences in trail use between gender and income (poverty level). Project staff will analyze "other" responses to questions about desirable trail features and suggested improvements along the trail to determine their importance to recommendations for the LWRP. Further, project staff will compare the above results to national and other survey data where applicable to determine commonalities and differences between Rochester and other cities. These results will be incorporated in to the final HIA LWRP, which is expected to be completed in June 2013.

References

[1]Institute of Transportation Pedestrian and Bicycle Council. "National Bicycle and Pedestrian Documentation Project." 2012.Web. <http://bikepeddocumentation.org/>.

[2]Parks and Trails New York. "Trail User Survey." No date. Survey provided by staff member of PTNY.

[3]Portland State University. “Trail Use Survey.” No date. Survey provided by technical assistance staff.

[4]McEwen, Bruce S. "Central Effects of Stress Hormones in Health and Disease: Understanding the Protective and Damaging Effects of Stress and Stress Mediators." *European journal of pharmacology* 583.2–3 (2008): 174-85. Print.

Appendix 1 – Trail User Survey (adapted from the National Bicycle and Pedestrian Surveys)

Location: _____ Date: _____ Time: _____

Survey conducted by: _____ Weather: _____ SURVEY ID #_____

We are interested in learning about how you use Rochester's waterfront trails. In this survey, "the trail" refers to any location along the Genesee Riverway Trail within the City of Rochester. For questions relating to trail condition and improvements, please refer to the area you are in now and how you are using the trail today.

1. **Today I am:** 1☐ Walking/Running 2☐ Biking 3☐ Other (please specify): _____

2. **What best describes the purpose of this trip** (*check all that apply)***?**
   1☐ Exercise 2☐ Work commute 3☐ School
   4☐ Recreation 5☐ Shopping/doing errands 6☐ Personal (medical, visiting friends, etc.)

3. **If you were not using the trail for this trip, how would you be traveling?**
   1☐ Car 2☐ Carpool 3☐ Transit (Bus) 4☐ I would not make this trip 5☐ Don't Know

4. **In the past month, about how often have you used this trail** *(check only one)***?**
   1☐ It's my first time ever on this trail 2☐ 0 – 5 times 3☐ 6 – 10 times 4☐ 11 – 20 times
   5☐ 21 – 29 times 6☐ Daily 7☐ Don't Know

5. **Please check the seasons in which you use this trail:**
   1☐ All year 2☐ Summer 3☐ Fall 4☐ Winter 5☐ Spring 6☐ Don't Know

6. **How did you get to this trail today** *(check all that apply)***?**
   1☐ Drove 2☐ Walked 3☐ Biked 4☐ Took the bus 5☐ Other: _____

7. **How far did you travel to get to this trail today?** _____ miles

8. **Home address (***NOTE: If you prefer not to give your address, please give an address near your house***):**
   Number: _____ Street: _____ City/State: _____ Zip: _____

9. **How long will you be [walking/biking/other]** *(same activity as now)* **on this trip?** _____ minutes

10. **How far will your trip on the trail be today** (*just the part of your trip that is actually on this trail*)**?**
    1☐ < ¼ mile 2☐ ¼ mile to ½ mile 3☐ ½ mile to 1 mile 4☐ 1 mile to 2 miles
    5☐ 2 miles to 5 miles 6☐ >5 miles 7☐ Don't Know

11. Will any part of this trip be taken on public transit (such as the bus)?
1☐ Yes 2☐ No 3☐ Don't Know

12. Why are you using this trail instead of [walking/biking/other] *(same activity as now)* **somewhere else** *(check all that apply)***?**
1☐ Accessible/no stairs 2☐ Scenic qualities 3☐ It is less crowded here
4☐ Personal safety 5☐ Level/flat 6☐ Convenient route (direct, close)
7☐ Wider lanes/path 8☐ Bike lanes 9☐ Heard about it (from friends, media, etc)
10☐ Connection to transit (bus) 11☐ No cars 12☐ Other: _____

13. What would you like to see improved along this trail *(check all that apply)***?**
1☐ Wider path 2☐ Better surface 3☐ Better street crossings
4☐ More shade trees 5☐ Benches 6☐ Access to shops, etc.
7☐ Better maintenance 8☐ Signs 9☐ Better lighting
10☐ Plowing in winter 11☐ Nothing 12☐ Other: _____

14. In your opinion, the safety and security along this trail is:
1☐ Excellent 2☐ Good 3☐ Fair 4☐ Poor 5☐ Don't Know

15. I would use the trail more often if *(check all that apply)***:**
1☐ I had more time 2☐ I did not have to travel with small children
3☐ It was easier to cross major streets 4☐ Places weren't too far away
5☐ It was better connected to other places 6☐ I felt safer/more secure
7☐ I didn't have things to carry 8☐ The trail was in better condition
9☐ I normally take a different trail 10☐ Other: _____
11☐ I already use the trail as often as I want (I would not use it more often)

16. FOR BIKERS ONLY: Are you wearing a helmet today? 1☐ YES 2☐ NO
IF "YES":* Why are you wearing a helmet today** *(check all that apply)?**
1☐ To protect myself in case of a crash 2☐ It's the law 3☐ To set a good example for children
4☐ Other: _____

IF "NO":* Why are you not wearing a helmet today** *(check all that apply)?**
1☐ I don't own one 2☐ I have one but I forgot to wear it
3☐ I have one but it doesn't fit 4☐ They're too expensive
5☐ It's too hot to wear one 6☐ I don't like how it looks
7☐ I don't like what it does to my hair 8☐ I don't need it right now (short trip)
9☐ Helmets don't protect you 10☐ Other: _____

17. Do you or your family regularly fish in waters around Rochester? 1☐ YES 2☐ NO
IF YES, do you ever fish in the Genesee River above (south of) Lower Falls?
1☐ YES 2☐ NO

Does your family regularly eat fish caught around Rochester? 1☐ YES 2☐ NO
IF YES, about how often did you eat locally caught fish during the last fishing season?
_____ meals per month

ABOUT YOU:

Race: 1☐ White 2☐ Black 3☐ Asian 4☐ Other: _____
Ethnicity: 1☐ Non-Hispanic 2☐ Hispanic or Latino
Age: _____
Gender: _____

How many people currently live in your household? _____adults _____children (under 18)
What is your approximate household income?

1☐ Less than $10,000	2☐ $20,000 - $24,999	3☐ $35,000 - $39,999
4☐ $10,000 - $14,999	5☐ $25,000 - $29,999	6☐ $40,000 - $74,999
7☐ $15,000 - $19,999	8☐ $30,000 - $34,999	9☐ $75,000 or more

Do you have any additional comments?

_____
_____
_____
_____

THANK YOU FOR YOUR TIME!

Appendix 2 – Trail Count Forms (adapted from the National Bicycle and Pedestrian Count Forms)

STANDARD SCREENLINE COUNT FORM

Name: _____ Location: _____
Date: _____ Start Time: _____ End Time: _____
Weather: _____

Please fill in your name, count location, date, time period, and weather conditions (fair, rainy, very cold, etc.). Count all bicyclists and pedestrians crossing your screen line under the appropriate categories.

☐ Count for two hours in 15-minute increments.

☐ Count the number of people on the bicycle, not the number of bicycles.

☐ Pedestrians include people in wheelchairs or others using assistive devices, children in strollers, etc.

☐ People using equipment such as skateboards or rollerblades should be included in the "Other" category.

☐ Record youth (those who look younger than college age) with a "Y" instead of a tally mark.

	Pedestrians		Bicycles				Others	
	Male	Female	Male helmet	Male no helmet	Female helmet	Female no helmet	Male	Female
00-:15								
15-:30								
30-:45								
45-1:00								
1:00-1:15								
1:15-1:30								
1:30-1:45								
1:45-2:00								
Total								

STANDARD INTERSECTION COUNT FORM

Name: _____ Location: _____
Date: _____ Start Time: _____ End Time: _____
Weather: _____

Please fill in your name, count location, date, time period, and weather conditions (fair, rainy, very cold, etc.). Count all bicyclists and pedestrians crossing your screen line under the appropriate categories.

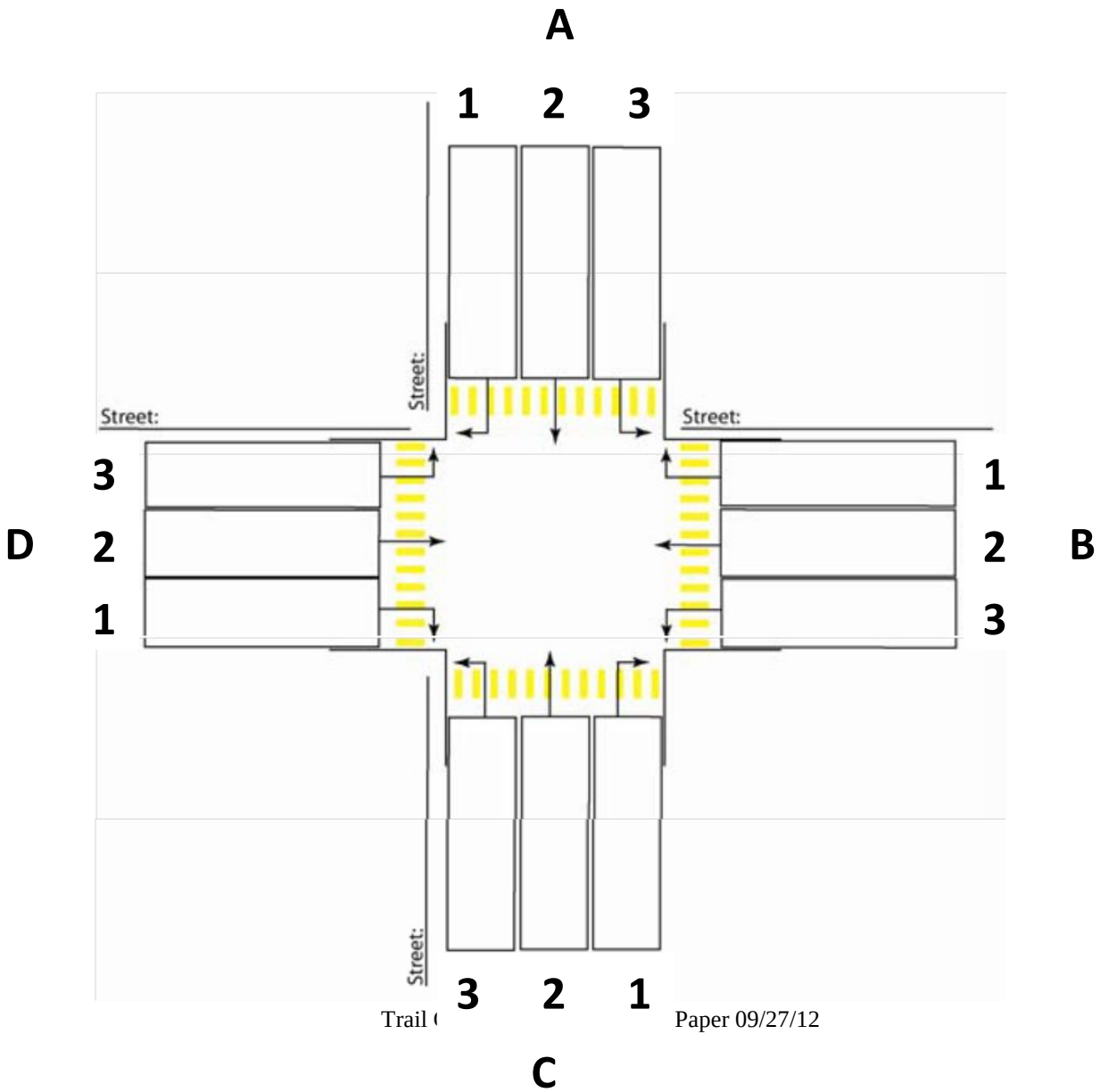
☐ Count for two hours in 15-minute increments.

☐ Count the number of people on the bicycle, not the number of bicycles.

☐ Pedestrians include people in wheelchairs or others using assistive devices, children in strollers, etc.

☐ People using equipment such as skateboards or rollerblades should be included in the "Other" category.

☐ Record youth (those who look younger than college age) with a "Y" instead of a tally mark.



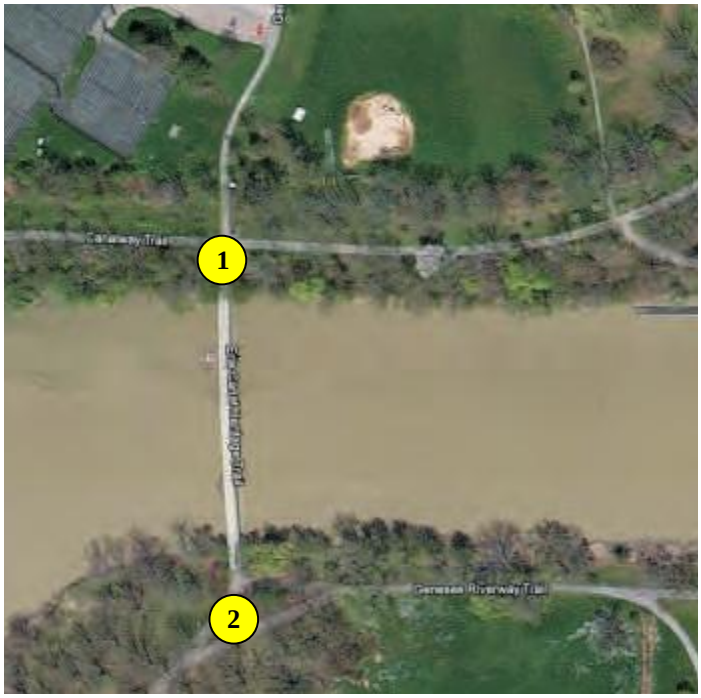
Time set: ___:___ to ___:___

	Pedestrians		Bicycles				Others	
	Male	Female	Male helmet	Male no helmet	Female helmet	Female no helmet	Male	Female
A1								
A2								
A3								
B1								
B2								
B3								
C1								
C2								
C3								
D1								
D2								
D3								
Total								

Appendix 3 – Directional Count Summaries

Site 1 – Genesee Valley Park West

	#	%
North to West	19	8%
North to South	16	7%
North to East	69	29%
East to North	53	23%
East to West	11	5%
East to South	0	0%
South to East	3	1%
South to North	17	7%
South to West	1	0%
West to South	3	1%
West to East	24	10%
West to North	19	8%
Total	235	



Site 2 – Genesee Valley Park East

	#	%
North to West	79	22%
North to South	0	0%
North to East	72	20%
East to North	40	11%
East to West	46	13%
East to South	0	0%
South to East	0	0%
South to North	0	0%
South to West	0	0%
West to South	0	0%
West to East	41	11%
West to North	84	23%
Total	362	

Users Crossing Between Sites 1 and 2 (Across the Genesee River)

Site 1	**#**	**%**
South to East (toward city)	3	14%
South to West (away from city)	1	5%
South to North (toward parking lot, Southwest Rochester)	17	81%
Site 2	#	%
North to East (toward city)	72	52%
North to West (away from city)	79	48%

Site 3 – Erie-Lackawanna Railroad Bridge

	#	%
North to West	20	17%
North to South	27	22%
North to East	0	0%
East to North	0	0%
East to West	0	0%
East to South	0	0%
South to East	0	0%
South to North	23	19%
South to West	14	12%
West to South	6	5%
West to East	0	0%
West to North	31	26%
Total	121	

Site 3 – Users of the new Erie-Lackawanna Rail Road Pedestrian Bridge

	#	%
All users on bridge	70	58%
Users traveling South to ELRR bridge	33	27%
Users traveling North from ELRR bridge	37	31%

Site 7 – Scrantom St. at St. Paul

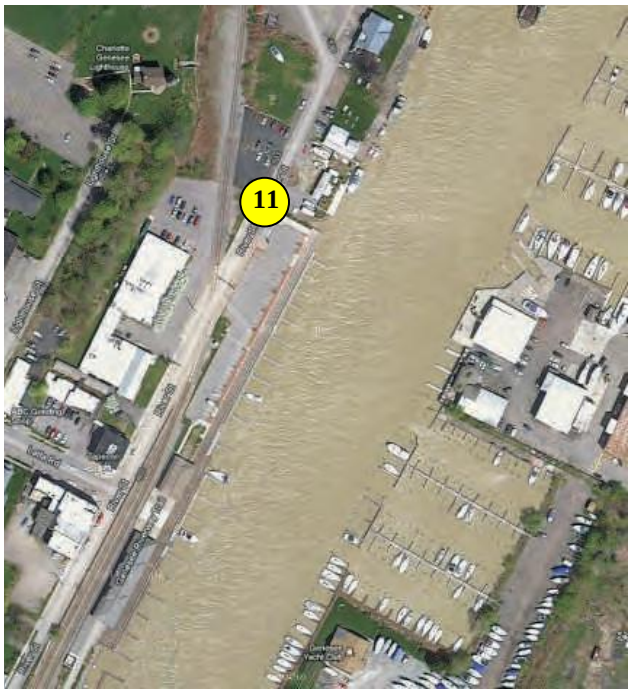
	#	%
North to West	0	0%
North to South	23	52%
North to East	0	0%
East to North	1	2%
East to West	0	0%
East to South	1	2%
South to East	0	0%
South to North	19	43%
South to West	0	0%
West to South	0	0%
West to East	0	0%
West to North	0	0%
Total	44	

Site 8 – Maplewood

	#	%
North to West	12	11%
North to South	18	16%
North to East	14	13%
East to North	15	13%
East to West	9	8%
East to South	6	5%
South to East	11	10%
South to North	15	13%
South to West	3	3%
West to South	1	1%
West to East	8	7%
West to North	0	0%
Total	112	

Site 11 – Lake Ontario State Parkway Trail

	#	%
North to West	0	0%
North to South	26	19%
North to East	24	18%
East to North	37	27%
East to West	2	1%
East to South	5	4%
South to East	15	11%
South to North	28	20%
South to West	0	0%
West to South	0	0%
West to East	0	0%
West to North	0	0%
Total	137	



United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Monroe County, New York

Genesee Valley Park West

January 2, 2013

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://soils.usda.gov/sqi/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://soils.usda.gov/contact/state_offices/).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

77° 39' 58"

N

Map Scale: 1:10,000 if printed on B size (11" x 17") sheet.

Meters: 0 — 150 — 300 — 600 — 900

Feet: 0 — 500 — 1,000 — 2,000 — 3,000

77° 37' 18"

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features
- Gully
- Short Steep Slope
- Other

Political Features
- Cities

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:10,000 if printed on B size (11" × 17") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 18N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Monroe County, New York
Survey Area Data: Version 10, Sep 25, 2012

Date(s) aerial images were photographed: 7/7/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Monroe County, New York (NY055)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
CoB	Colonie loamy fine sand, 0 to 6 percent slopes	6.8	2.1%
Ee	Eel silt loam	16.4	5.0%
GaB	Galen very fine sandy loam, 2 to 6 percent slopes	3.9	1.2%
Ge	Genesee silt loam	12.0	3.6%
Ng	Niagara silt loam	33.3	10.1%
SeB	Schoharie silt loam, 2 to 6 percent slopes	40.8	12.4%
Ub	Urban land	143.6	43.7%
W	Water	71.7	21.8%
Totals for Area of Interest		**328.4**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially

where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Monroe County, New York

CoB—Colonie loamy fine sand, 0 to 6 percent slopes

Map Unit Setting

Elevation: 150 to 1,000 feet
Mean annual precipitation: 30 to 35 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 145 to 190 days

Map Unit Composition

Colonie and similar soils: 80 percent
Minor components: 20 percent

Description of Colonie

Setting

Landform: Beach ridges, deltas
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy glaciofluvial or eolian deposits

Properties and qualities

Slope: 0 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (1.98 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.1 inches)

Interpretive groups

Farmland classification: All areas are prime farmland
Land capability (nonirrigated): 2s
Hydrologic Soil Group: A

Typical profile

0 to 7 inches: Loamy fine sand
7 to 51 inches: Loamy fine sand
51 to 60 inches: Fine sand

Minor Components

Arkport

Percent of map unit: 5 percent

Claverack

Percent of map unit: 5 percent

Minoa

Percent of map unit: 5 percent

Elnora
Percent of map unit: 5 percent

Ee—Eel silt loam

Map Unit Setting
Elevation: 600 to 1,800 feet
Mean annual precipitation: 30 to 35 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 145 to 190 days

Map Unit Composition
Teel and similar soils: 80 percent
Minor components: 20 percent

Description of Teel

Setting
Landform: Flood plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Talf
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Silty alluvium

Properties and qualities
Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Available water capacity: High (about 9.3 inches)

Interpretive groups
Farmland classification: All areas are prime farmland
Land capability (nonirrigated): 2w
Hydrologic Soil Group: B/D

Typical profile
0 to 13 inches: Silt loam
13 to 31 inches: Silt loam
31 to 60 inches: Fine sandy loam

Minor Components

Wayland
Percent of map unit: 5 percent

Landform: Flood plains

Hamlin
Percent of map unit: 5 percent

Unnamed soils
Percent of map unit: 5 percent

Alton
Percent of map unit: 5 percent

GaB—Galen very fine sandy loam, 2 to 6 percent slopes

Map Unit Setting
Mean annual precipitation: 30 to 35 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 145 to 190 days

Map Unit Composition
Galen and similar soils: 80 percent
Minor components: 20 percent

Description of Galen

Setting
Landform: Deltas on lake plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Deltaic deposits with a high content of fine and very fine sand

Properties and qualities
Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Available water capacity: Moderate (about 6.5 inches)

Interpretive groups
Farmland classification: All areas are prime farmland
Land capability (nonirrigated): 2w
Hydrologic Soil Group: A/D

Typical profile
0 to 7 inches: Very fine sandy loam
7 to 25 inches: Loamy very fine sand

25 to 45 inches: Loamy very fine sand
45 to 63 inches: Stratified very fine sand to silt loam

Minor Components

Arkport
Percent of map unit: 5 percent

Claverack
Percent of map unit: 5 percent

Elnora
Percent of map unit: 5 percent

Minoa
Percent of map unit: 5 percent

Ge—Genesee silt loam

Map Unit Setting
Mean annual precipitation: 30 to 35 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 145 to 190 days

Map Unit Composition
Hamlin and similar soils: 80 percent
Minor components: 20 percent

Description of Hamlin

Setting
Landform: Flood plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Silty alluvium mainly from areas of siltstone, shale, and limestone

Properties and qualities
Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 36 to 72 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Available water capacity: High (about 11.0 inches)

Interpretive groups
Farmland classification: All areas are prime farmland

Land capability (nonirrigated): 1
Hydrologic Soil Group: B

Typical profile
0 to 9 inches: Silt loam
9 to 24 inches: Silt loam
24 to 33 inches: Loam
33 to 72 inches: Loam

Minor Components

Wayland
Percent of map unit: 5 percent
Landform: Flood plains

Teel
Percent of map unit: 5 percent

Unnamed soils
Percent of map unit: 5 percent

Udifluvents
Percent of map unit: 5 percent

Ng—Niagara silt loam

Map Unit Setting
Mean annual precipitation: 30 to 35 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 145 to 190 days

Map Unit Composition
Niagara and similar soils: 75 percent
Minor components: 25 percent

Description of Niagara

Setting
Landform: Lake plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Silty and clayey glaciolacustrine deposits

Properties and qualities
Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 6 to 18 inches

Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: High (about 10.3 inches)

Interpretive groups

Farmland classification: Prime farmland if drained
Land capability (nonirrigated): 3w
Hydrologic Soil Group: C/D

Typical profile

0 to 10 inches: Silt loam
10 to 25 inches: Silt loam
25 to 60 inches: Stratified silt loam to clay

Minor Components

Collamer

Percent of map unit: 5 percent

Hilton

Percent of map unit: 5 percent

Minoa

Percent of map unit: 5 percent

Canandaigua

Percent of map unit: 4 percent
Landform: Depressions

Appleton

Percent of map unit: 3 percent

Niagara, loamy subsoil variant

Percent of map unit: 3 percent

SeB—Schoharie silt loam, 2 to 6 percent slopes

Map Unit Setting

Mean annual precipitation: 30 to 35 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 145 to 190 days

Map Unit Composition

Schoharie and similar soils: 80 percent
Minor components: 20 percent

Description of Schoharie

Setting

Landform: Lake plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread

Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Reddish clayey and silty glaciolacustrine deposits

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: Moderate (about 9.0 inches)

Interpretive groups

Farmland classification: All areas are prime farmland
Land capability (nonirrigated): 2e
Hydrologic Soil Group: D

Typical profile

0 to 11 inches: Silt loam
11 to 38 inches: Clay
38 to 60 inches: Stratified clay to silt loam

Minor Components

Cayuga

Percent of map unit: 5 percent

Collamer

Percent of map unit: 5 percent

Cazenovia

Percent of map unit: 5 percent

Odessa

Percent of map unit: 5 percent

Ub—Urban land

Map Unit Setting

Mean annual precipitation: 30 to 35 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 145 to 190 days

Map Unit Composition

Urban land: 80 percent
Minor components: 20 percent

Minor Components

Alton
Percent of map unit: 5 percent

Brockport
Percent of map unit: 5 percent

Madrid
Percent of map unit: 5 percent

Sun
Percent of map unit: 5 percent
Landform: Depressions

W—Water

Map Unit Setting
Mean annual precipitation: 30 to 35 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 145 to 190 days

Map Unit Composition
Water: 100 percent

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Genesee Valley Park West Master Plan

Community / Aquatics Center Components

Community Wellness / Fitness Component

- Gymnasium
  - full size basketball court
  - limited bleachers/seating but can have external mezzanine / viewing area
- Running Track
  - reduced size
- Fitness Center
  - treadmills, ellipticals, weights, cycles
  - flexible space for multi-use classes (dance, yoga, aerobics)
- Meeting / Activity Space
  - multi-purpose / use
  - flexible size (dividers / partitions)
  - performance stage
- Computer Lab
- Kitchen
  - full service commercial for cooking classes, community event use, and summer breakfast & lunch programs

Aquatics Center Component

- Outdoor Pool
- Indoor Current / Therapy Pool
- Indoor 4 Season Spray Park
- Locker / Shower Room / Restrooms
- Leasable Concession Space
- Indoor / Outdoor Viewing / Patio Area
- Mechanicals

Staff / Administration Component

- Entry Lobby / Security / Check-In
- Storage
- Custodial
- Mechanicals
- Offices to accommodate staff
- Life Guard Locker / Shower Rooms

FIGURE 8 - AVERAGE ANNUAL DAILY TRAFFIC
SOURCE: CITY OF ROCHESTER PARCEL DATA, 2014

Utilities

Records indicate that an 18-inch diameter vitrified sewer pipe is present along the back side of the river wall, along with a 6-inch diameter vitrified drainage line. Manholes are also shown on the record drawings that extend down to these pipes. It is unknown if the system remains active. It is suspected that the 6-inch vitrified pipe was installed to provide drainage and limit hydrostatic pressures along the back side of the wall. It is not known if the drainage system is open (cleared) and works effectively to drain soils behind the wall. Field inspection did not reveal the presence of these manholes on site. No other utilities are known to be located between the river wall and the eastern curb line of Exchange Boulevard.

Hazardous Waste and Contaminated Materials

NYSDEC's Environmental Site Database does not indicate the presence of environmental contamination within the study area, though there was one spill recorded at Corn Hill Landing in 1999. The City maintains documentation of remediation actions taken regarding this event. Due to the study area's historic industrial and rail use, further environmental study in the form of a Phase 1 and 2 should be completed as part of the final design process.

The Genesee River

This section describes key considerations for flood protection and management in and around the river wall, including an updated hydrologic and hydraulic analysis of the Genesee River and a sedimentation analysis.

Flood Protection and Water Management

Protection from Genesee River flooding in the Corn Hill area has historically been provided by the river wall, constructed around 1918 by the New York State Canal Corporation (NYSCC). The construction of the Mount Morris Dam, completed in 1952 by the U.S. Army Corps of Engineers, Buffalo District, provides considerable flood control by storing the volume of the floodwaters behind the dam. In 1972, Hurricane Agnes caused severe flooding throughout western New York State. The Mount Morris dam retained the excess floodwaters from this storm event, to the point of its capacity. In addition, the sector gates at Court Street Dam were lowered to the minimum level, dropping the river levels. In the Rochester area the combination of these operations resulted in minimal flooding downstream of Mount Morris. It is estimated that these actions saved over $200 million in flood damages in Rochester. These projects have made the river wall less important as a flood control measure.

In addition to these structural flood control measures, the City of Rochester practices floodplain management through its participation in the National Flood Insurance Program (NFIP). This program, run by the Federal Emergency Management Agency (FEMA), provides for otherwise unavailable flood insurance, in return for the City adopting and enforcing a Flood Damage Prevention Ordinance. This ordinance requires all new and substantially improved structures in the mapped floodplain to be elevated to at or above the 100-year flood elevation (frequently referred to as the Base Flood Elevation, or BFE). In New York State, through the state's requirement of adoption of higher standards, new and substantially improved construction in the mapped floodplain must be 2.0 feet above BFE. An additional provision of the NFIP is a requirement to purchase flood insurance for properties purchased with federally-insured mortgages.

In the City of Rochester, there are 88 flood insurance policies in force with an average yearly premium of $1,360 (as of 4/30/2014). FEMA's privacy policies do not allow the locations of individual policy holders to be released, but it is reasonable to assume that many of these policy holders are in the Corn Hill area. The historic FEMA floodplain maps, issued in 1977, showed the river wall providing flood protection and the Corn Hill area as being located outside of the floodplain.

When FEMA produced a seamless county-wide map for Monroe County in 2008, the agency used hydraulic analyses from the historic maps and mapped the new floodplain, showing the river wall as no longer providing flood protection. As a result there are

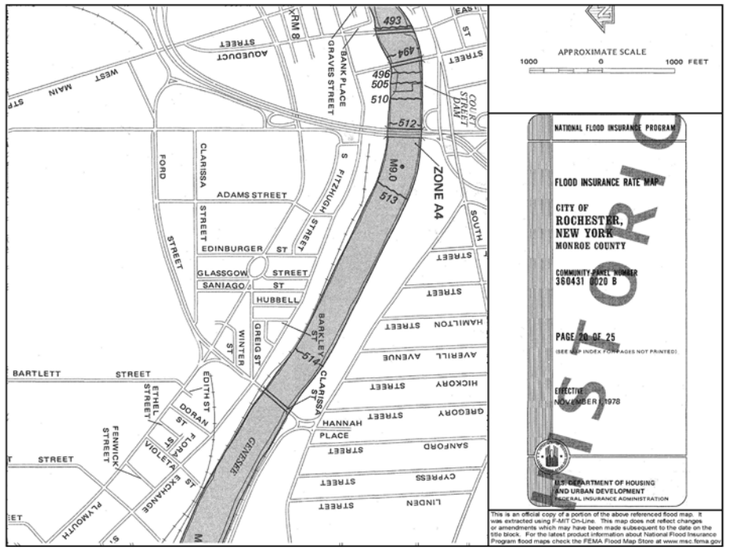

FIGURE 9 - FLOOD INSURANCE RATE MAP, 1978

SOURCE: FEMA (ELEVATIONS ARE ACCORDING TO NATIONAL GEODETIC VERTICAL DATUM OF 1929)

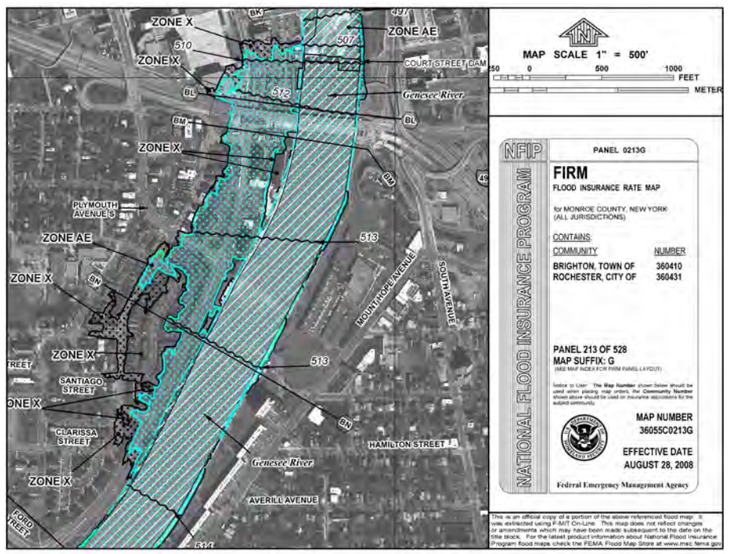

FIGURE 10 - FLOOD INSURANCE RATE MAP, 2008

SOURCE: FEMA (ELEVATIONS ARE ACCORDING TO THE NAVD88 DATUM. THE CONVERSION FROM NAVD88 TO CITY OF ROCHESTER IS +1.56' FOR THE PROJECT SITE)

areas in Corn Hill that are in the newly mapped floodplain.
It is believed that many of the flood insurance policy holders in the City of Rochester are property owners in the Corn Hill area who are financing their home purchase with a mortgage and are therefore required to obtain insurance. Reconstruction of the river wall to meet FEMA criteria for levees and floodwalls would relieve this financial burden on the homeowners.

Flood Elevation Analysis

An updated hydrologic and hydraulic analysis of the Genesee River was conducted to establish an appropriate flood elevation for design purposes. One of FEMA's criteria for indicating on its maps that a floodwall provides protection is that it has three feet of freeboard. Therefore, the project team developed an updated representation of the 100-year flood conditions of the Genesee River for presenting to FEMA for a map update.
The historic hydrologic analyses used a regression equation to estimate the 100-year discharge. A Log Pearson statistical analyses of the years 1956 to 2013 resulted in a 100-year flow of 24,493 cubic feet per second (cfs). When compared with the historic hydrologic 100-year flow of 32,500 cfs, the analyses showed significant flow reduction. The USGS gage recorded 22,500 cfs in 1972 (during Hurricane Agnes) which compares favorably with these results.

The hydraulic analyses were intended to reflect actual operations during flood conditions, specifically, (1) Mount Morris Dam gate closure and (2) lowering of sector gates at Court Street Dam. The findings of the hydraulic analysis indicate a required top of wall ranging from El. 516.6 (near Ford Street) to El. 515.9 (near Corn Hill Landing), according to City Datum. The original top of wall surface ranges from El. 519.8 (near Ford Street) to El. 518.7 (near Corn Hill Landing), per City Datum. Hence, this suggests that the top of the wall could be lowered on the order of 2.75 feet to 3.25 feet.

In addition, the team evaluated current sediment conditions in the vicinity of the West River Wall, showing a sedimentation rate of 0.073 (0.87 inches) feet per year. Assuming this sedimentation rate would continue for another 20 years, the resulting water surface elevations would increase by about 0.5 feet.

VIEW OF RIVER SIDE OF WALL LOOKING UPSTREAM FROM CORN HILL LANDING

Waterfront Recreation and Natural Resources

Current recreational opportunities within the landside waterfront area behind the West River Wall are limited to walking and biking along the Riverway Trail. The trail is both physically and visually separated from the river (by wall and overgrown vegetation), further limiting the recreational experience. At the northern end of the study area, there an aluminum floating dock system and gangway, anchored to the wall. Depending on water levels, the dock system can become hung up on accumulated river sediment. Use of the dock system is also somewhat impeded by the presence of high river sediment, which greatly limits allowable boat draft. The docks system also appears to be in disrepair. There are no other locations within the study area that provide access to the river.

Corn Hill Landing, by contrast, draws a variety of users and residents, offering shopping opportunities and restaurants, a pedestrian plaza with seating, a kayak launch, and interpretive signs and amenities. This suggests an opportunity to leverage activity occurring at Corn Hill Landing by developing improvements such as docking for larger recreational craft and utility hookups for boaters that invite those visitors to explore and use the waterfront area in the study area.

City of Rochester
City Hall Room 308A, 30 Church Street
Rochester, New York 14614-1290
www.cityofrochester.gov

one city ROCHESTER
Thomas S. Richards
Mayor

April 5, 2012

Mr. Robert Traver, Regional Director
New York State Department of Transportation
1530 Jefferson Road
Rochester, New York 14623

Re: GVP - Olmstead Bridges
City of Rochester
Monroe County

Dear Mr. Traver:

Please be advised we are in receipt of an engineering evaluation commissioned by the New York State Department of Transportation (NYSDOT) that summarizes the condition of three historic structures spanning the Erie Canal in Rochester, New York.

Correspondence received from the New York State Canal Corporation indicates that all three structures are owned and maintained by the New York State Department of Transportation.

These bridges span the Erie Canal and serve as prominent features within Genesee Valley Park. Genesee Valley Park was laid out in 1888 by Fredrick Law Olmstead and is on the National Register for Historic Places. Along with the park's designation, these three canal structures are individually eligible for the National Register of Historic Places.

The three bridges were built in the early 1900's to span over the Erie Canal and consist of single span concrete arches. They currently serve as pedestrian crossings and emergency access within the park. These bridges are not just functional; they serve to frame and enhance one of Rochester finest waterfront features – the crossing of the Historic Erie Canal and the Genesee River. These bridges are situated in such a manner, that they are featured prominently in numerous promotional brochures related to the greater Rochester Region. They connect to several historic neighborhoods, the University of Rochester, and directly link Rochester's award winning Genesee Riverway Trail to a much greater regional network.

These historically significant structures have received little attention since being constructed. It has been over 100 years since these bridges were built and they are showing signs of advanced deterioration and decay.

Inaction and/or demolition of these structures are not an option.

Please be advised that our community is watching this degradation with amazement and wondering why the great state of New York sits ideally by on the sidelines. These structures represent more than a utilitarian crossing for us. We should not have to wait until they collapse into the Canal for you to recognize the urgency of this matter. We implore you to take action and program funding to renovate these truly spectacular structures.

Sincerely yours,

Thomas S. Richards
Mayor

Re: GVP - Olmstead Bridges
City of Rochester
Monroe County

Attachments

cc: Leonard Redon, Deputy Mayor
Brian Stratton, Director NYS Canal Corp.
John Callaghan, Deputy Director, Canal Corp
Paul Holahan, Commissioner DES
James McIntosh, P.E., City Engineer
Thomas Hack, P.E., DES Engineering
JoAnn Beck, DES Engineering

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
REGION FOUR
1530 JEFFERSON ROAD
ROCHESTER, NEW YORK 14623-3161
www.nysdot.gov

ROBERT A. TRAVER, P.E.
ACTING REGIONAL DIRECTOR

JOAN McDONALD
COMMISSIONER

May 1, 2012

Honorable Thomas S. Richards
City of Rochester Mayor
30 Church Street
Rochester, NY 14614

Re: Genesee Valley Park – Olmstead Bridges

Dear Mayor Richards:

Reference is made to your letter dated April 5, 2012 concerning the pedestrian bridges in Genesee Valley Park. That letter infers that these structures are on the verge of collapse and that the Department is taking no action. I can assure you that neither is the case.

As referenced in your letter, the Department has had these spans evaluated recently. We are aware of the condition of these and continue to monitor them in the context of our entire system needs. Our first and foremost charge is to ensure they are safe. Aesthetics do not carry as much weight in our evaluation as does safety and structural flags.

One of these structures has a general rating of 3, the other two are 4, which is around the rating where they may be able to be rehabilitated, depending on the cost. Considering the construction type, the historical nature, the rehab costs and replacement cost, it would lead one to believe replacement would be a more cost effective solution, buying more life per dollar. Prior to replacement, the Department would get all remaining life out of the structure to maximize the taxpayer investment. Although "...our community is watching this degradation with amazement..." they should understand the prudence of maximizing the life of a previous investment, even when it doesn't look pretty.

These fiscally difficult times add another glitch in any hope to address these immediately. The Genesee Transportation Council recently removed over $70 million of bridge projects from the Transportation Improvement Program due to lowered federal funding allocations. Infrastructure needs greatly exceeds the available resources. An additional problem with funding is that these particular structures are eligible for only a very limited number of fund sources, not being eligible for Federal Highway and Bridge Program funds.

We will continue to monitor these structures, assuring that they remain safe and will consider projects within our very effective asset management framework.

If you have any questions, please call Dan Hallowell at (585) 272-3410.

Sincerely,

Robert A. Traver

Robert A. Traver, P.E.
Acting Regional Director

Cc: Erik Frisch, City Planning
Jim McIntosh, City Engineer
Paul Holahan, Commissioner DES
R. Perrin, GTC Director

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Acting Regional Director

Cc: Erik Frisch, City Planning
Jim McIntosh, City Engineer
Paul Holahan, Commissioner DES
R. Perrin, GTC Director

Bergmann associates
architects // engineers // planners

CONDITION ASSESSMENT & CONCEPT STUDY

GENESEE VALLEY PARK
PEDESTRIAN ARCH BRIDGES (BINs 4443611, 4443612 & 4443660)

CITY OF ROCHESTER, NEW YORK
December 2011

IN ASSOCIATION WITH:

Prudent Engineering, LLP
Watts Architecture & Engineering, PC

28 East Main Street // 200 First Federal Plaza // Rochester, NY 14614-1909

www.bergmannpc.com

Bergmann associates
architects // engineers // planners

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1.0 EXECUTIVE SUMMARY

Bergmann Associates was retained by the NYSDOT to perform a condition assessment and concept study for the following pedestrian bridges:

- BIN 4443611 - Genesee Valley Park Pedestrian Bridge over Erie Canal
- BIN 4443612 - Genesee Valley Park Pedestrian Bridge over Erie Canal
- BIN 4443660 - Canal Trailway Pedestrian Bridge over Erie Canal

The purpose of this report is to summarize the condition of the existing bridges and evaluate rehabilitation and replacement alternatives. The existing bridges are similar, with each consisting of a single span concrete arch. No load rating, fatigue evaluation, or seismic vulnerability assessments have been performed for these structures as part of this study.

Condition evaluation of the bridges was developed based on an in-depth inspection of BIN 4443660 and cursory visual inspection of the other two bridges. The deck coring program and in-depth field inspection revealed that the concrete is showing signs of deterioration.

Concept level cost estimates have been developed for both rehabilitation and replacement alternatives for the Canal Trailway Pedestrian Bridge over Erie Canal (BIN 4443660). The 2011 estimated construction cost for this pedestrian bridge structure is as follows:

Rehabilitation Alternatives
1. Repair Deteriorated Concrete Areas = $1.10 million
2. Reface All Concrete on Fasciae & Underside = $2.37 million

Replacement Alternatives
3. Rebuild Cast-In-Place Arch on a Portion of the Existing Abutments = $3.02 million
4. New Conventional Bridge on a Portion of the Existing Abutments = $1.75 million
5. New Conventional Bridge on a New Alignment = $2.44 million

Given the structures had similar deficiencies, geometric characteristics, and quantities, it is assumed, for purposes of estimating, that rehabilitation and replacement costs would be similar between the three structures. These estimates do not include any costs for trail approach work, inflation for the expected award amount, engineering design or construction inspection.

A detailed breakdown of costs is provided in Section 5.0.