



*2012 ANNUAL REPORT
PRESIDENT'S COMMISSION
ON THE RIVER*

*PREPARED BY
DR. PATRICK L. LAWRENCE, CHAIR
PRESIDENT'S COMMISSION ON THE RIVER*

PATRICK.LAWRENCE@UTOLEDO.EDU

DECEMBER 2012

(COVER PHOTOGRAPH BY DEEPESH BISTA, 2012 STUDENT RIVER PHOTO CONTEST 1ST PRIZE)

Introduction



(photograph by Anne Peer, 2012 Student River Photo Contest 2nd prize)

2012 continued as a busy year of work by the UT President's Commission on the River. In February, after the long efforts by many groups and individuals, the removal of the contact advisory signs and lifting of the comprehensive fish advisory for the Ottawa River at UT was a great accomplishment. The three year river restoration project made strides with the completion of phase I and planning underway for the end of this project with phase II scheduled for 2013 for in-stream restoration, river plantings and signage.

The increased interest and awareness of the river and activities of the Commission are seen as a positive step forward. The future prospects for continued improvements to the beautification, environmental conditions, public awareness, community engagement, and student involvement associated with the Ottawa River on the main campus of the University remain very strong.

This 2012 annual report is presented as a summary of the many projects and activities by the Commission over the past year. As chair of the Commission, I would like to extend my appreciation to the Commission members, partners and funding agencies for all their efforts and support.

Dr Patrick L. Lawrence
Professor/Chair
Department of Geography and Planning
Chair, UT Presidents Commission on the River
patrick.lawrence@utoledo.edu

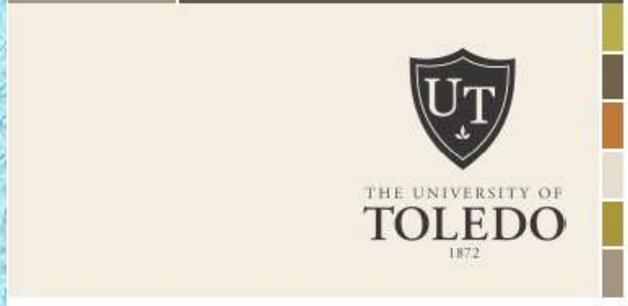
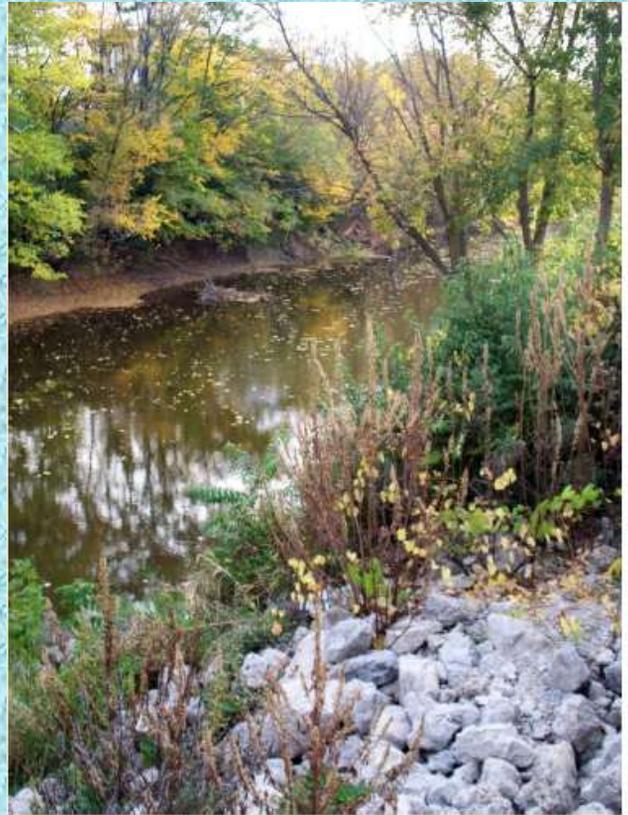
December 2012

Table of Contents

5 th Anniversary of the Commission	p.4
2012 UT BIG event day cleanup	p.5
Storm water mitigation project by Civil Engineering	p.6
River Restoration Project Year 3: Phase I	p.7
River Restoration Project Year 3: Phase II	p.10
Contact Advisory Postings	p.13
River Bank Maintenance	p.14
Civil Engineering Senior Design Project: Storm water	p.15
Civil Engineering Senior Design Project: Bridge	p.17
UT Storm Water Management Plan	p.20
Carolyn Edwards Memorial Rain Garden	p.21
2012 Celebrate our River Week	p.22
16 th Annual Clean Our Streams, September 15 th , 2012	p.23
Financial Report (FY 2012)	p.25
Outreach and Education	p.26
Wildlife on the Ottawa River	p.27
Commission Priorities for 2013	p.29
Commission members (2012)	p.30
Acknowledgements	p.31
For More Information	p.32

5th Anniversary of the UT Presidents Commission on the River

- On January 10, 2012 a reception was held in recognition of the five year anniversary of formation of the Commission
- A brochure was prepared that highlights the many activities and achievements of the Commission
- Brief remarks were made by
- Dr. Bill McMillian (Vice President-Academics/Provost), Chuck Lehnert (Vice President-Administration), Dick Eastop (Commission Chair, 2005-2006) and Patrick Lawrence (current Commission Chair)
- Special appreciation and acknowledgements were given to all the partners and individuals who have contributed to the efforts and work of the Commission over the last 5 years



2012 UT BIG event day cleanup

- On March 24th, several hundred UT students headed out to cleanup areas and neighborhoods within the City of Toledo including on the UT main campus
- Over 50 volunteers cleaned along the Ottawa River on campus covering the areas from CPA to Savage Arena
- Appreciation is extended to the volunteers and the organizers of the UT BIG event for all their efforts



Storm water mitigation project by UT Civil Engineering

- In Spring 2012, lead by Dr. Cyndee Gruden, graduate students in Civil Engineering developed a grant proposal to the Ohio EPA SWIF program for funding to install a treatment train to address a storm water outfall at a site adjacent to Carlson Library
- This project extended from the efforts by senior design students in civil engineering in fall 2011
- In October 2012 OEPA announced that this project was selected for funding and will now move towards design and implementation in 2013

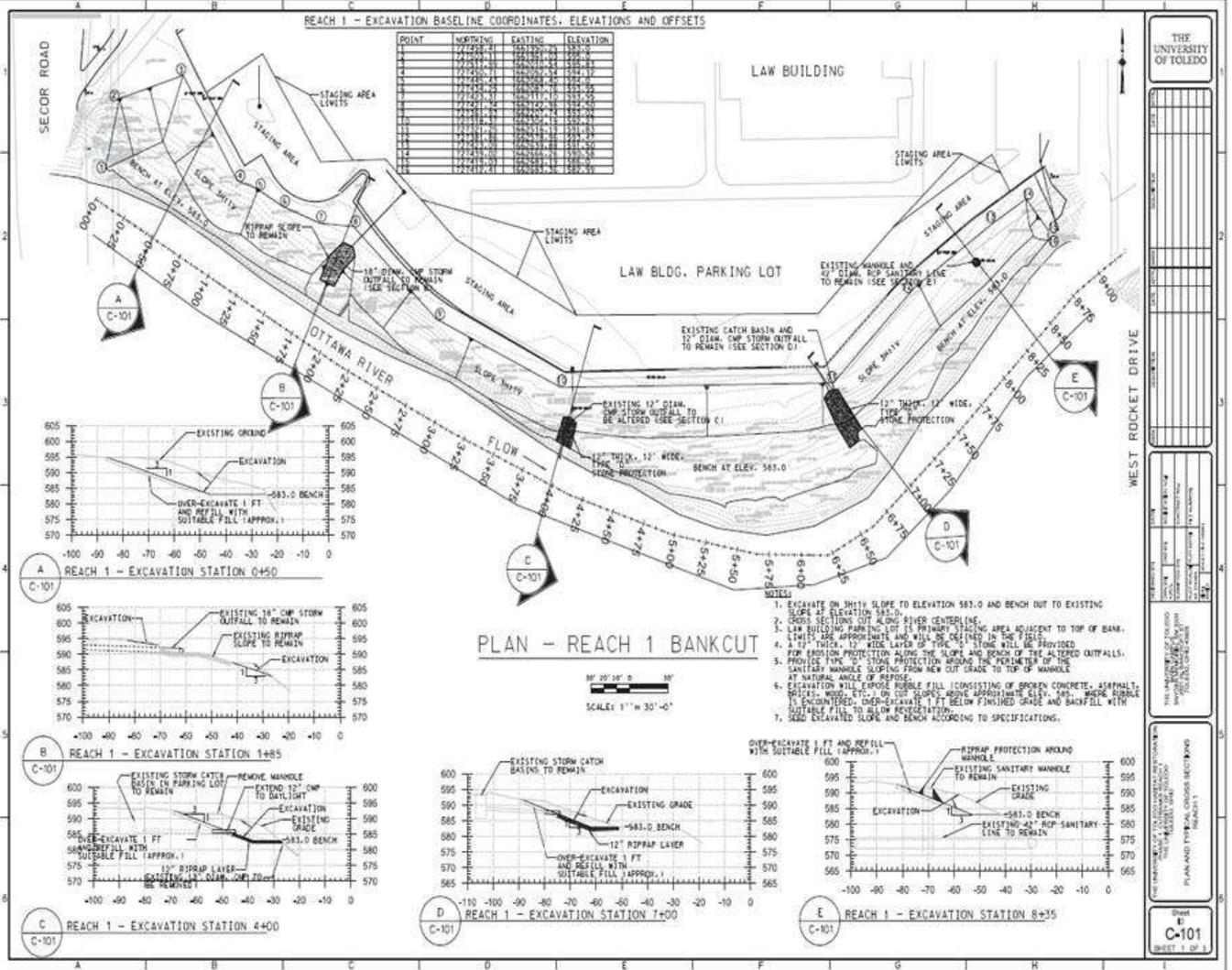


River Restoration Project (EC3)

Year 3: Phase I Cutbank Construction



- After initial review by the design team from US ACOE (Buffalo District) and the project team of the proposed in-stream restoration structures for the entire 3,700 feet of the Ottawa River on main campus, hydrological analysis revealed the potential for future increases in the flood levels upstream of the campus with the installation of the structures.
- As a result the concept plans were modified to reduce the number and placement of structures. In order to increase the capacity of the river on campus to hold potential future flood levels, a cutbank was to be constructed along the 900 feet of the north bank in reach 1, located adjacent to the Law School parking lot.
- Planning for the cutbank was completed in Spring 2012 with tree removal in June and construction in August 2012, followed by reseeding and plantings of trees and shrubs.
- Successful completion of phase I with the construction of the cutbank has allowed work to proceed with final design of phase II: in-stream restoration.



Stages of the Construction of the Cutbank (June to August 2012) photos below



During construction approximately 4,700 cubic yards of concrete fill placed at the site in the late 1950s was removed

- The project also allowed for improvements to two existing storm water outfalls.



- Initial reseeding used a native rye grass intended to grow to 18 to 24 inches high with little maintenance required.

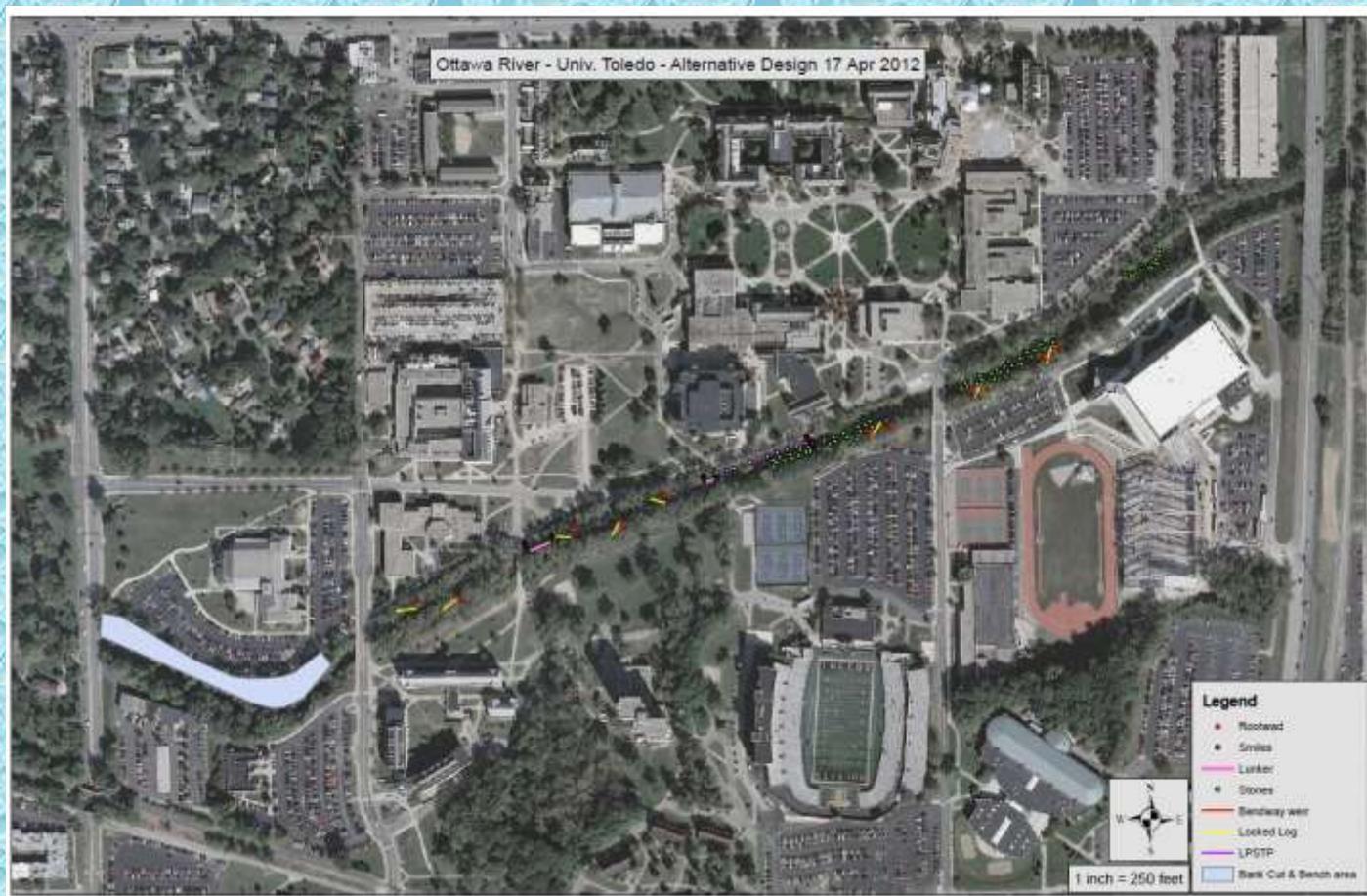


- In October 2012 over 317 small trees and plants were added to the site.



River Restoration Project (EC3) Year 3: Phase II In-stream design concepts

- Following the decision to proceed with construction of the cutbank, the project team worked with ACOE Buffalo District to revise final concept design plans for the proposed in-stream restoration structures, specifically their number and location.
- The plans call for the placement of a total of 11 bank structures plus 40 to 60 in-stream hydraulic cover stones along reaches 2 to 5 (from West Campus Bridge downstream/east to Parking Garage 2 Bridge).
- The final draft plans for the phase II In-stream restoration work were presented at a public open house on October 30th, 2012.
- Addition aspects for phase II will include selective replanting of aquatic and bank vegetation, an information kiosk, and signage along the river.
- Plans were to be completed in fall 2012 with required federal/state permits to be obtained in early 2013, followed by construction contracts in spring 2013; In-stream construction is scheduled for August 2013 with plantings and signage completed in fall 2013.



Public Meeting

University of Toledo Ottawa River Restoration Project Phase II: In-Stream Restoration



Tuesday October 30th

4:00 – 6:00 pm

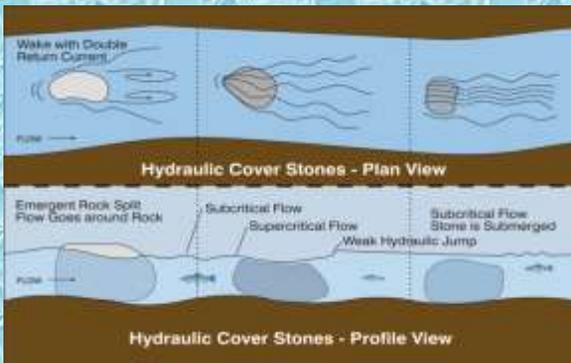
Snyder Memorial 3066

*Drinks and light refreshments provided
Parking available in Lot 10.*

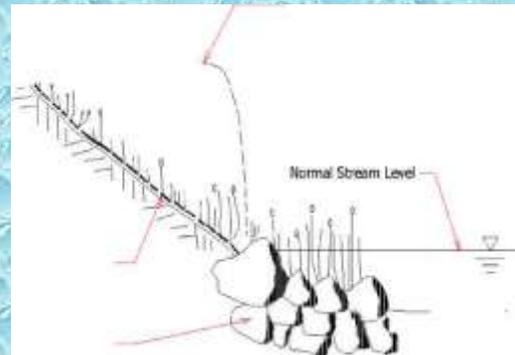
*For more information please contact:
Dr. Patrick Lawrence
Chair, UT Presidents' Commission on the River
(patrick.lawrence@utoledo.edu)*

Examples of the In-stream habitat restoration structures to be used in phase II

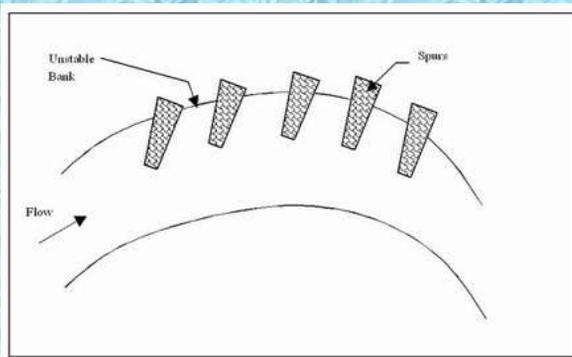
Hydraulic Cover Stones



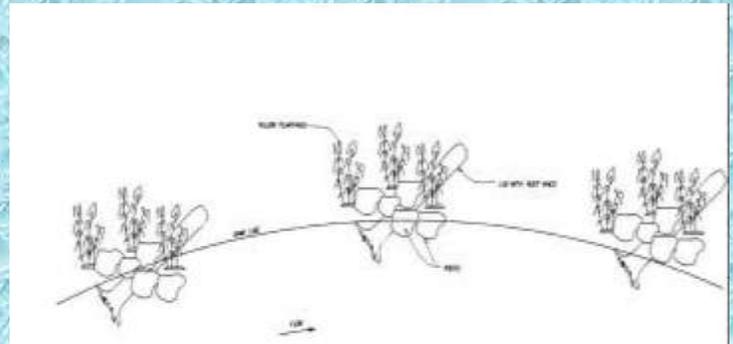
Longitudinal Stone Toe Protection



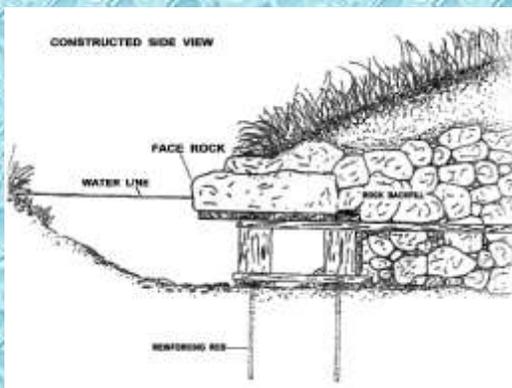
Bendway Weirs



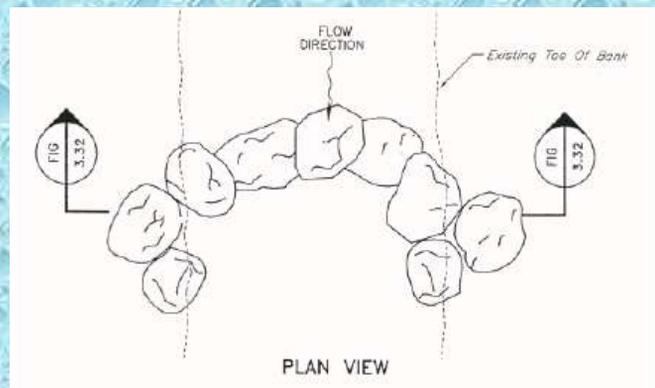
Locked Logs



LUNKERS

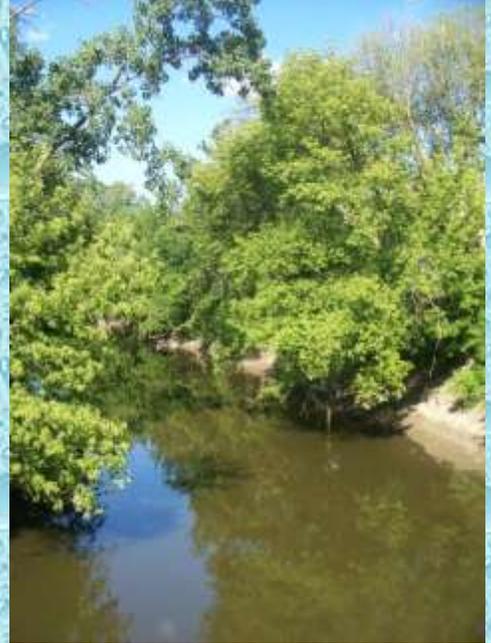


Smiles and Frowns



River Bank Maintenance

- UT Grounds, in consultation with the Commission, continues an ongoing maintenance program for selective clearing of dead or dying trees and ground cover invasive species.
- This effort has been underway for several years, working along selected sections of the river on an annual basis and completed in association with replanting of trees.
- The aim is preventive and safety focused (to address potential tree falls onto bridges and walkways, while improving visibility and overall beautification benefits
- This work will also continue throughout 2013 in association with the river restoration project and associated plans for planting of native riverbank species



Civil Engineering Senior Design Project: Storm Water Concept for the “Flats”

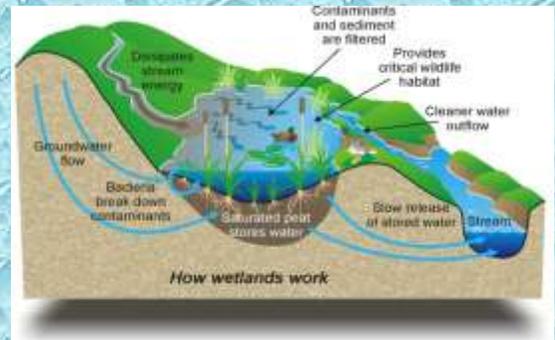
Campus RainWorks Challenge A Green Infrastructure Design Challenge for Colleges and Universities, US EPA Office of Water

Campus Flatlands, The University Of Toledo - Toledo, Ohio

Thomas Bachmayer, Robert Bowser, Elizabeth Bussing, Eric Finger, Lauren Mccafferty, Courtney Mobilian, Joseph Perchinske, Daniel Toris, Alexander Welfle

- Proposal prepared by civil engineering and environmental sciences students for a “treatment train” storm water mitigation project to be located in the “flats” area of campus, and submitted to the 2012 US EPA Campus Rain Works Challenge grant program

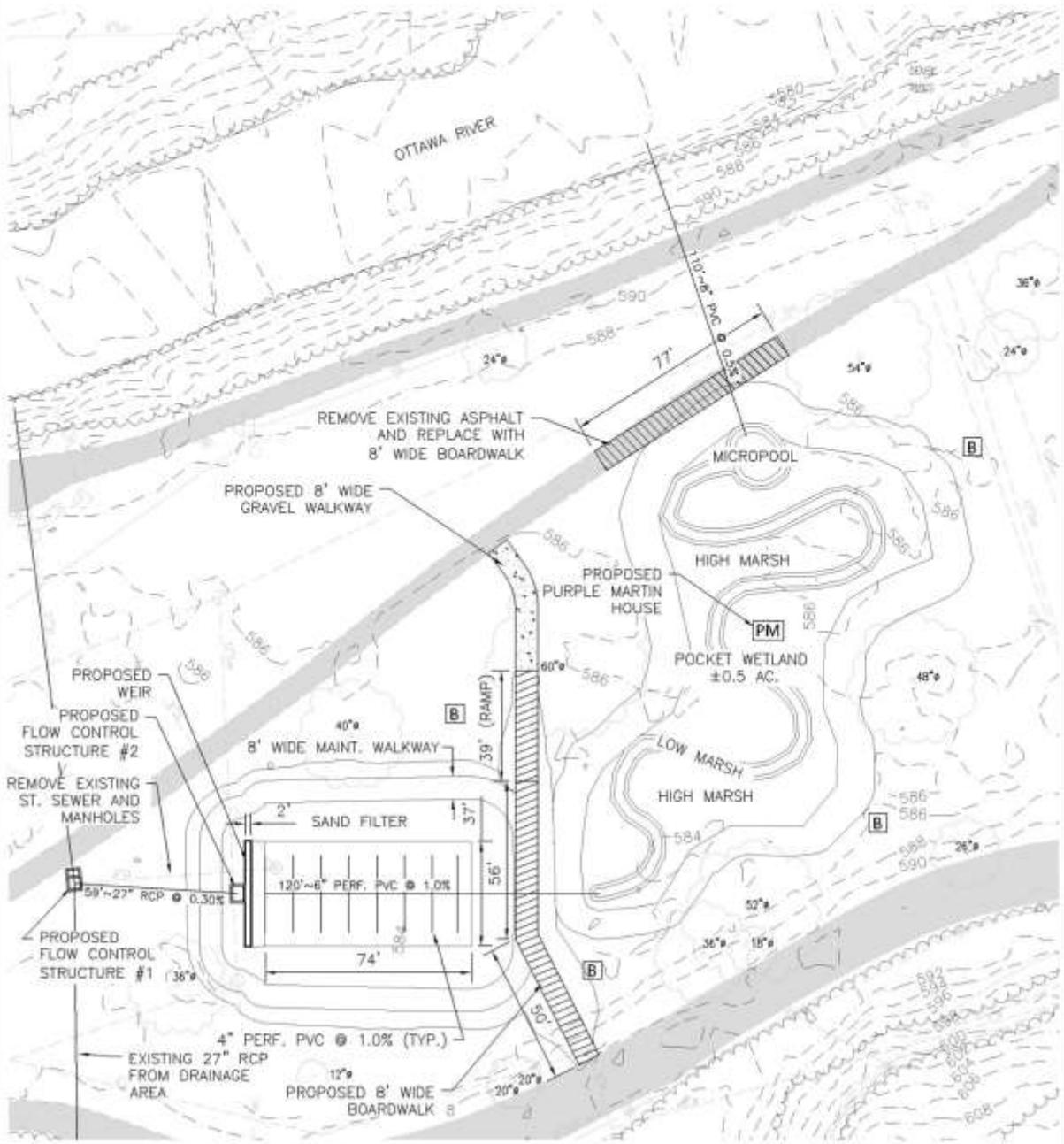
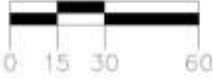
Table 1: Decision Table	Sand and Organic Filters	Pocket Wetland
Functional	Sufficient area and Minimal impact to infrastructure	Sufficient area and Minimal impact to infrastructure
Life-Cycle	Biannual-annual maintenance	>20 years, Annual maintenance
Economical	\$185,000-\$434,000	\$57,000 for a one Acre facility
Ecological	Removes suspended solids, phosphorous, nitrates, and metals and reduces stormwater flow	Removes suspended solids, phosphorous, nitrates, and metals and reduces stormwater flow
Quality of Design	Yes	Yes
Legal/Ethical	Yes	Yes
Aesthetically Pleasing	Yes	Yes
Safe	Yes	Yes



SITE PLAN - DESIGN

LEGEND

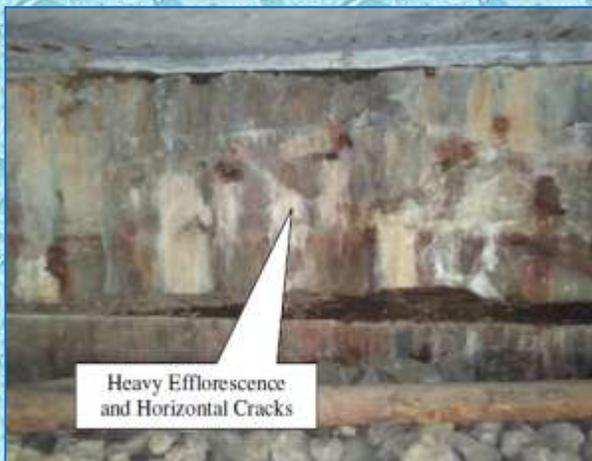
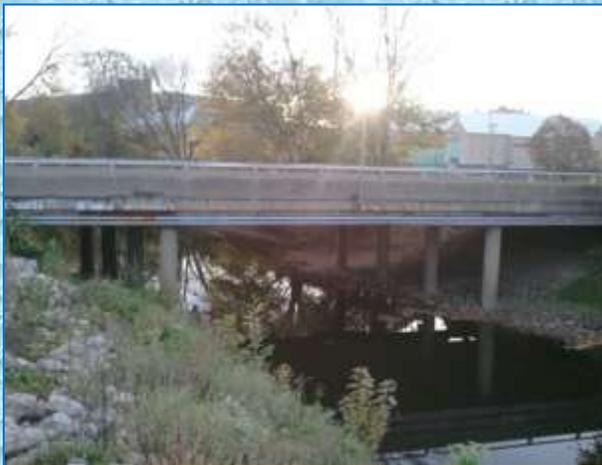
- 60"  = EXISTING DECIDUOUS TREE W/ CALIPER DIA.
-  = EXISTING ASPHALT PAVEMENT
- 580  = EXISTING GRADE CONTOURS
-  = PROPOSED BAT HOUSE



Civil Engineering Senior Design Project: Replacement of the David Root Bridge

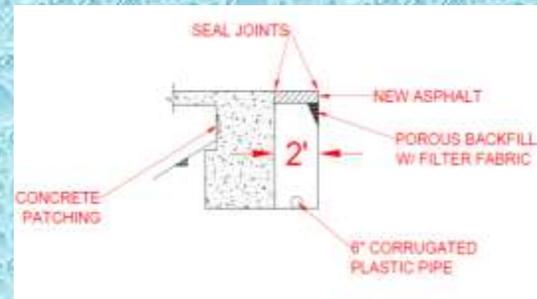
Report prepared by: Blair Newman, Danielle Sheppa, Kathryn Gillette, Todd Cereghin, Nicholas Steyer

- 50+ years of damage and deterioration
- Lack of ample walkway
- Pedestrian safety
- Absence of aesthetic appeal
- Project will be used to develop a budget to secure funding



Bridge Repair Option

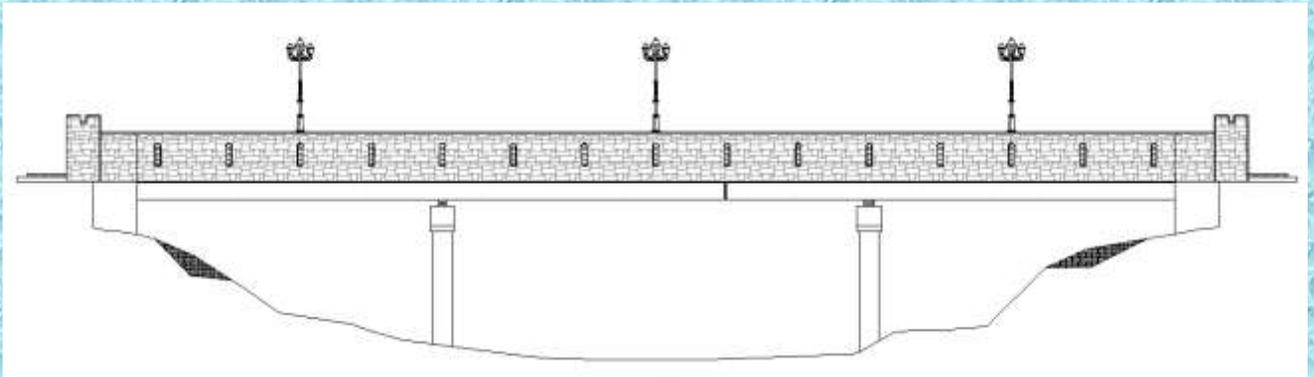
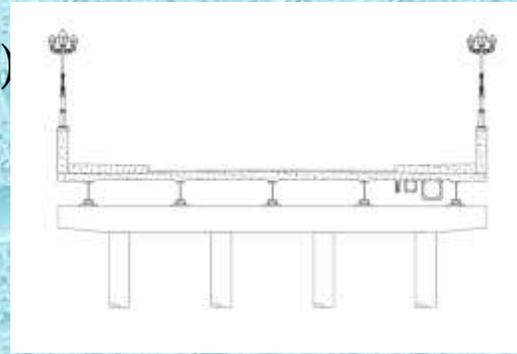
- Repair of substructure, deck, and railing
- Sounding tests indicated areas of concrete to be repaired
- Remove abandoned conduit at South abutment
- Install underdrains on North and South ends
- Seal abutments with epoxy
- Widen sidewalk by 1' by decreasing driving lanes
 - Aid in pedestrian comfort
 - Slow traffic by shortening width of lanes
- Replace damaged hand railing
- Keep utilities in place
 - Work around them
- Life of bridge after repair: 20 years



Description	Quantity	Unit Cost	Cost
Concrete Patching	278 SF	\$ 68.11/SF	\$ 18,934
Abutment Drainage	2 EA	\$ 5,705.50/EA	\$ 11,411
Epoxy Injection	40 FT	\$98.08/FT	\$3,923
Epoxy Sealing	300 SF	\$7.87/SF	\$2,360
Widen Sidewalks	260 LF	\$ 14.31/LF	\$ 3,721
Repair Hand Railing	8.5 FT	\$ 75.76/FT	\$ 644
General Conditions	1 LS	\$17,349/LS	\$17,349
		Total	\$ 58,342

Bridge Replacement Options

- Concrete and steel were considered (steel recommended)
- Design features include:
 - 1' Custom designed parapet wall
 - Wider sidewalks: 8' (ADA compliant)
 - Utilizes existing piers
 - Utilities located in the 9' bays
- Superstructure Design:
 - 8" Composite Deck
 - 5-W21x83 girders spaced at 9' with 3' overhangs
- Temporary electric line
- Life of steel bridge deck: 75+ years



Description	Cost
Demo Bridge Deck	\$61,850
Demo Abutments	\$6,816
New Abutments	\$29,383
New Pier Caps	\$16,290
New Superstructure	\$317,770
General Conditions	\$122,507
Total	\$554,616

UT Storm Water Management Plan



- In September 2012 the University submitted a draft MS4 Storm Water Management Plan to Ohio EPA which requires a series of programs and activities to be undertaken to address storm water discharge into the Ottawa River on main campus and related issues.
- This plan includes:
 - Monitoring and assessment of storm water outfall discharges
 - Public education and outreach on storm water impacts
 - Public participation and involvement
 - Construction site storm water runoff control
 - Post construction storm water runoff
 - Illicit discharge elimination program
 - Pollution control
- The implementation of the MS4 storm water management plan is the responsibility of UT Health & Safety.
- The Commission will assist and support these efforts.

Carolyn Edwards Memorial Rain Garden

- Ongoing planting and maintenance continues at the lot 10 rain garden
- Involves continuing removal of invasive plants, selective clearing, and replanting
- In May 2012 the Campus Beautification Committee added an art sculpture to the site as part of their annual outdoor art program
- Appreciation is extended to the Todd Crail, Dr Hans Gottgens and volunteers from UT Environmental Sciences and the Toledo Rain Garden Initiative for their efforts and hard work



2012 Celebrate Our River Week

September 10th to 15th

Again this year the Commission hosted events and activities that focused on the Ottawa River and the work of the Commission.

- This year the week included:
 - A poster board display in the Carlson Library
 - Scavenger Hunt
 - Student river photography contest
 - And UT involvement in the 16th Annual Clean Your Streams community event.
- Appreciation is given to the various members of the Commission and others from the UT Community for their assistance with these events.



(photograph by Diane Lynn Woodring, 2012 Student River Photo Contest 3rd prize)

16th Annual Clean Your Streams event

September 15th, 2012

Over 420 !! UT and community volunteers participated in the annual CYS event in 2012, working at twenty five sites located at:

- Main Campus
- Health Sciences Campus
- Scott Park Campus
- Village of Ottawa Hills
- River east of main campus
- Camp Miakonda



- Over 100 large bags of trash weighing more than 1,500 pounds were collected and removed.
- Most peculiar items: bowling ball, table, foam mattress, car piston, fake moustache, fire extinguisher.
- Appreciation is extended to the Office of the President for their continued support of this event as a community partner.



Financial Report (FY 2012)

- **EC³ river restoration project (total funding 2011-2013)**
 - OEPA 319 program grant = \$235,000
 - FY12 Spending = \$ 58,195
 - Balance (06/30/2012) = \$ 176,805
 - USFWS GLRI grant = \$114,132
 - FY12 Spending = \$ 35,300
 - Balance (06/30/2012) = \$ 78,832
- **Stranahan Foundation grant for EC³ : Year 3**
 - Carryover/Income (FY 2012) = \$28,376
 - Expenses (FY 2012) = \$27,166*
 - Balance (as of 06/30/2012) = \$ 1,210**
- **Friends of the River Fund (UT Foundation account)**
 - FY11 balance forward = = \$ 5,557
 - Income (pledges) = \$ 2,800
 - Expenses (FY 2012) = \$ 940
 - Balance (as of 06/30/2012) = \$ 4,616***
 - Cash on Hand (06/30/2012) = \$ 1,816

Unless noted all values refer to FY 2012: July 1, 2011 to June 30, 2012

* EC³ expenses include ACOE agreement, supplies, workshops, and staff support

** On 7/30/2012 Stranahan Foundation approved carry forward of remaining funds for scheduled Fall 2012 project activities including workshop and tree plantings

*** Includes pledges made but yet received as cash income

Outreach and Education

- News articles on the work of the Commission appeared in the UT News and Independent Collegian and feature reports on ABC 13 and WTOL.
- Work of the Commission was highlighted in various University classes.
- The Commission hosted a one day workshop on Ottawa River Habitat Restoration in February 2012.
- Concept plans for the in-stream portion of the River Restoration Project were the focus of a public meeting on October 30th, 2012 and a display in the Carlson Library during Celebrate Our River week.
- Presentations on the work of the Commission and the river restoration project were given to UT Faculty Senate, UT Board of Trustees, UT Student Government, and UT Law School.
- The activities and work of the Commission were presented at community meetings, including the Maumee RAP Summits.



Wildlife on the Ottawa River

Increasingly a large number of wildlife are calling the river home
– or at least stopping in for a visit!



(photograph by Deepesh Bista, 2012 Student River Photo Contest entry)

- And continued evidence can be seen of the ongoing improvements to the Ottawa River habitat conditions with Rainbow Trout caught at the University of Toledo

DEC. 3, 2012



Photo By Nick Bryan

COLORFUL CATCH: Doctoral ecology student Carson Prichard held up a rainbow trout he caught in the Ottawa River on UT's Main Campus. Nick Bryan, a graduate student in ecology, also caught a rainbow trout. The recent catches show that this species has begun using this part of the Ottawa River; according to Bryan, who is a teaching assistant in the Department of Environmental Sciences. Trout are indicators of good water and habitat quality in rivers, and until now were not seen at UT, he said. The trout are examples of the improved aquatic habitat from the Ottawa River restoration project, which began earlier this year with help from a \$235,000 grant from the Ohio Environmental Protection Agency and a \$111,000 grant from the U.S. Fish and Wildlife Service.

Commission Priorities for 2013



(photograph by Kyle Tate, 2012 Student River Photo Contest entry)

- Completion of river restoration phase II
 - Construction on in-stream structures
 - Selected replanting along river banks
 - Installation of information kiosk and signage
- Continued participation in the University Storm water Management Plan.
- Advocate for open place planning for the area between the river, Field House, Wolf Hall, and Carlson Library.
- Pursue options for a river trail system linked to efforts by the University for an improved walking and biking system on main campus.
- Ongoing support for community outreach and public education efforts including Celebrate Our River week and Clean Your Streams event.
- Pursue funding support through donations and grants to advance work of the Commission and related projects.

Commission Members (2012)

- Dr. Patrick Lawrence, UT (chair)
- Mike Cassidy, Community
- Doug Collins, UT
- Don Curtis, UT
- Dick Eastop, UT
- Kurt Erichsen, TMACOG
- Dr. Hans Gottgens, UT
- Dr. Steve LeBlanc, UT
- Chuck Lehnert, UT
- Dick Meyers, Toledo Design Center
- Dr. Carol Stepien, UT
- Jay Brewster, Blanchard Tree and Lawn
- Katie Swartz, American Rivers



(photograph by Adam Potter, 2012 Student River Photo Contest entry)

Acknowledgements

- The Commission would like to recognize the following individuals and groups for their assistance and in support of our projects and activities during 2012:
 - President's Office, University of Toledo
 - Chuck Lehnert, Vice President Administration
 - Vern Snyder, Vice President Institutional Advancement
 - Doug Collins, Manager, Parking and Grounds
 - UT Facilities & Construction; UT Grounds
 - UT Safety and Health
 - UT Foundation and Institutional Advancement
 - UT Department of Geography & Planning
 - UT Department of Environmental Sciences
 - UT Library
 - UT Honors College
 - Dr. Cyndee Gruden, Civil Engineering
 - Senior design class students, UT Civil Engineering program
 - Stranahan Foundation
 - Toledo-Lucas County Rain Garden Initiative
 - American Rivers
 - Dr. Jimmie Edwards
 - Todd Crail
 - UT Campus Environs & Beautification Committee
 - Blanchard Tree and Lawn
 - Ohio EPA
 - US Fish and Wildlife Service
 - US Army Corps of Engineers
 - TMACOG
 - EnviroScience
 - Atlas Paving
 - Aaron Tree Service Inc.
 - Partners for Clean Streams Inc. and Maumee RAP
 - Tim Bollin and students from the Toledo Public Schools TECHS program, UT Scott Park Campus
 - With funding support provided by:
 - Ohio EPA 319 grant program
 - US Fish & Wildlife Service
 - Stranahan Foundation
 - US Army Corps of Engineers
 - UT Foundation Friends of the River
 - UT Presidents Office

**For more information on the
Commission please go to
our Facebook page or website at:
www.utoledo.edu/commissions/river**



(photograph by Emily Potter, 2012 Student River Photo Contest entry)