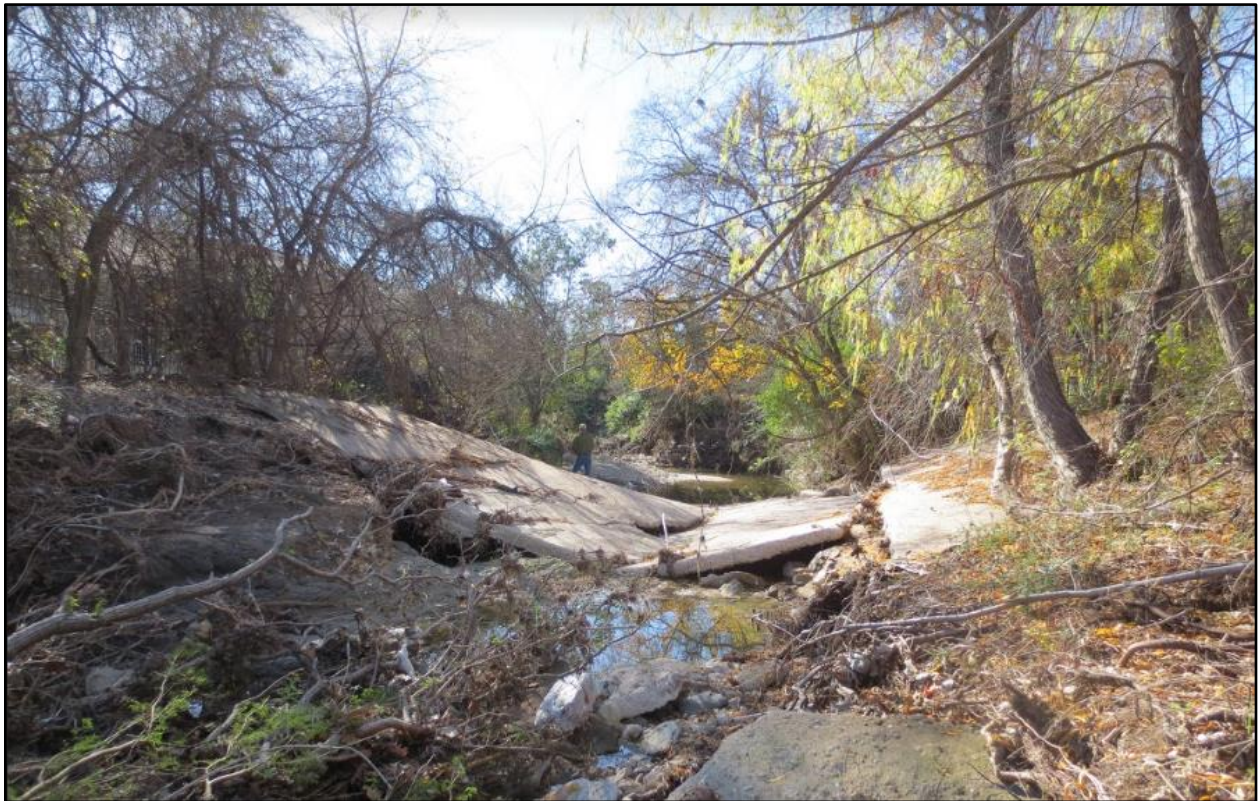


5th Symposium on Urbanization and Stream Ecology



**Moving the bar on multidisciplinary solutions to
wicked urban stream problems**

**February 12-15, 2020
Palmer Events Center, Austin, TX USA**

Meeting Supporters & Sponsors

We want to thank our sponsors Baer Engineering, Michael Van Valkenburgh Associates, Eureka Water Probes, Sustainable Streams, Lycoming College Clean Water Institute, Puhoi Stour, and the National Science Foundation (Award DEB-2012128) for supporting the 5th Symposium on Urbanization and Stream Ecology.

National Science Foundation Support



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General Information

Meeting Schedule

Day 1: February 12, 2020

Location: Austin Central Library, 710 W César Chávez St, Austin TX

2:30 PM – 7:30 PM	Registration Table Open
3:00 PM – 3:30 PM	Welcome to SUSE5: Why are we here?
3:30 PM – 4:30 PM	Plenary Presentation by Dr. Kelly Turner STORMS: Translating Local Decision-Making to Environmental Outcomes
4:30 PM – 7:30 PM	Evening Social (drinks and appetizers)
5:00 PM – 6:00 PM	Plenary Presentation by Dr. Chris Walsh You need a little space, in the right place, and a lot of demand for the water. Lessons for urban stream protection from the Little Stringybark Creek Project.

Day Two: February 13, 2020

Location: Palmer Events Center, 2nd floor, 900 Barton Springs Rd, Austin TX

8:00 AM – 8:30 AM	Arrival, Registration, and Coffee
8:30 AM – 8:45 AM	Welcome to SUSE5
8:45 AM – 9:45 AM	Wicked Problems and Structured Decision Making
9:45 AM – 10:00 AM	Case Studies and Meeting Structure
10:00 AM – 10:30 AM	--- Break ---
10:30 AM – 12:00 PM	Work Session 1: Introduction to Case Studies, Problem Scoping
12:00 PM – 1:30 PM	Lunch and Plenary Presentation by Dr. Michael Chadwick Urban Streams in London: wicked problems and messy solutions?
1:30 PM – 3:30 PM	Work Session 2: Digging In, Further Problem Framing, Objectives

3:30 PM – 4:00 PM	---- Break ---
4:00 PM – 6:00 PM	Poster Session 1
6:00 PM and beyond	Dinner on your own

Day Three: February 14, 2020

Location: Palmer Events Center, 2nd floor, 900 Barton Springs Rd, Austin TX

8:15 AM – 8:30 AM	Load Vans and Depart for Field Trips
8:30 AM – 12:00 PM	Work Session 3: Field Trip to Case Study Sites, Developing Solutions
12:00 PM – 1:30 PM	Lunch and Plenary Presentation by Dr. Taurai Bere Urban stream time bombs: critical reflections on sustainability of urban stream water resources in developing countries.
1:30 PM – 3:30 PM	Work Session 4: Convergent Thinking, Refining Solutions, Presentation Development
3:30 PM – 4:00 PM	---- Break ---
4:00 PM – 6:00 PM	Poster Session 2
6:00 PM and beyond	Dinner on your own. Prepare for Group Presentations

Day Four: February 15, 2020

Location: Palmer Events Center, 2nd floor, 900 Barton Springs Rd, Austin TX

8:00 AM – 8:30 AM	Arrival, Coffee, and Networking
8:30 AM – 8:45 AM	Agenda and Publication Planning
8:45 AM – 9:30 AM	Case Study 1, Team Presentation and Discussion
9:30 AM – 10:15 AM	Case Study 2, Team Presentation and Discussion
10:15 AM – 10:45 AM	---- Break ---
10:45 AM – 11:30 AM	Case Study 3, Team Presentation and Discussion
11:30 AM – 12:15 PM	Case Study 4, Team Presentation and Discussion
12:15 PM – 1:30 PM	Lunch and Panel Closing Discussion
1:30 PM	--- End of Symposium --

Plenary Speakers

The SUSE5 program includes invited talks by four scientists working on the forefront of urban stream research: Prof. Taurai Bere, Dr. Michael Chadwick, Asst. Prof. V. Kelly Turner, and Assoc. Prof. Chris Walsh will join us in Austin. Please see more about their work and the subjects of their talks below.



Asst. Prof. Kelly Turner

V. Kelly Turner is an Assistant Professor at the University of California, Los Angeles where she is Associate Director of Urban Environment Research at the Luskin Center for Innovation and faculty affiliate at the Institute of Environment and Sustainability. She researches the relationship between institutions, urban design, and the environment. Her approach draws from social-ecological systems frameworks to address urban planning and design problem domains. In recent work she has used this approach to investigate microclimate regulation, green infrastructure for stormwater management, and residential landscaping.

Plenary Talk: STORMS: Translating Local Decision-Making to Environmental Outcomes

This talk describes the interdisciplinary STORMS project, which aims to determine how heterogeneous decision-making processes and management actions in the Cleveland, Ohio and Denver, Colorado regions influence environmental outcomes at the watershed scale. One aspect of the project aims to understand the role formal rules and individual norms in shaping stormwater management actions, especially the likelihood of adopting green infrastructure as a stormwater control measure. Emerging results from the project will be presented and discussed with respect to the capacity of regional stormwater management programs to facilitate collective action to improve hydrology and ecosystem health in urban regions.



Assoc. Prof. Chris Walsh

Chris Walsh co-leads the interdisciplinary Waterway Ecosystem Research Group (<https://thewerg.org>) at the University of Melbourne and is also a principal researcher in the Melbourne Waterway Research-Practice Partnership (<https://mwrpp.org>), a collaboration between Melbourne Water and The University of Melbourne. He has arrived at this point after 25 years as a stream ecologist, most notably studying streams of urban environments, and working with practitioners towards urban land and water management for stream protection. He is a confirmed urbanite in the great metropolis of Melbourne, where he convened the first Symposium on Urbanization and Stream Ecology in 2003.

Plenary Talk: You need a little space, in the right place, and a lot of demand for the water. Lessons for urban stream protection from the Little Stringybark Creek Project.

In this talk, Chris will describe The Little Stringybark Creek project; a large, ambitious, catchment-scale experiment designed to test if the ecological degradation of streams resulting from urban stormwater runoff could be reversed through retrofitting catchment drainage systems. After installation of more than 600 dispersed stormwater control projects across 5 small experimental catchments, and 17 years of hydrologic and ecological monitoring of their streams (and control and reference streams), in-stream responses have been variable, but lessons learnt have been big and influential. The talk will highlight lessons from the project, and how they have influenced plans for major stormwater retention and harvesting in a large greenfield development in northwest Melbourne, to protect currently rural Emu Creek: the site of the next experiment.



Dr. Michael Chadwick

Michael Chadwick is a Senior Lecturer at King's College London interested in exploring both applied and basic ecological questions in aquatic science. A central aim of his research has been to understand the effects of natural and human-induced ecosystem changes in lotic ecosystems. Past work has spanned large spatial scales in varied aquatic systems. This includes work on the main channel of the Mobile River (Alabama), tidally-influenced rivers in England, tributaries of the St. Johns River (Florida), and intermittent streams (Maine and Florida). Current projects focus on evaluating London's urban rivers.

Plenary Talk: Urban Streams in London: wicked problems

and messy solutions?

In this talk, Michael will present research which has evaluated ecological structure and functional processes among highly urbanized tributaries of the River Thames in Greater London, UK. Given the history of river use and urban development in London, these streams suffer from a myriad of pressures ranging from intensive urban development, sewage misconnections to invasive species. Regulatory pressures to achieve good ecological potential along with grassroots citizen science have driven restoration activities which have provided mixed results. As such, improving these streams could be viewed as a classic wicked problem which will require rigorous science and policy to achieve sustainable healthy conditions. The talk will seek to draw parallels from research in other regions to contextualize London's urban river issues.



Prof. Taurai Bere

Taurai Bere is a Professor at the Chinhoyi University of Technology in Zimbabwe. His areas of expertise include river health assessment, biological monitoring of aquatic systems (especially diatom-based biological monitoring), aquatic eco-toxicology, and integrated water resources management. He has published over 40 research articles in peer reviewed international journals, has won research grants from international funding organisations and has presented his work at several international conferences.

Plenary Talk: Urban stream time bombs: critical reflections on sustainability of urban stream water resources in developing countries.

Taurai will describe that in developing countries, urban streams are under severe pressure from such activities as water abstraction, discharge of untreated sewage, siltation and pollution, leading to changes in the ecological integrity, abundance, and quality of freshwater resources. In this talk, Taurai will critically analyse the current threats to ecological integrity of urban streams in developing countries and their implications on sustainability and proffer science-based solutions to these threats. Water pollution, eutrophication, invasive species, siltation, water abstraction and climate change are highlighted as major threats to urban streams in developing countries. Challenges include funding, inadequate infrastructure for freshwater research and management, inadequate and poor implementation of the existing policy frameworks due to lack of political will and corruption leading to breakdown in public service delivery. A balanced science program characterised by building long-term stability required to support decision and policy making by maintaining an integrated monitoring program and a comprehensive scientific data management program is proposed.

Location Information

Meeting Location Information

Austin Central Library

710 W César Chávez St. Austin, TX

Phone: (512) 974-7400

<http://library.austintexas.gov/central-library>

Day 1: Weds Feb 12, 2020



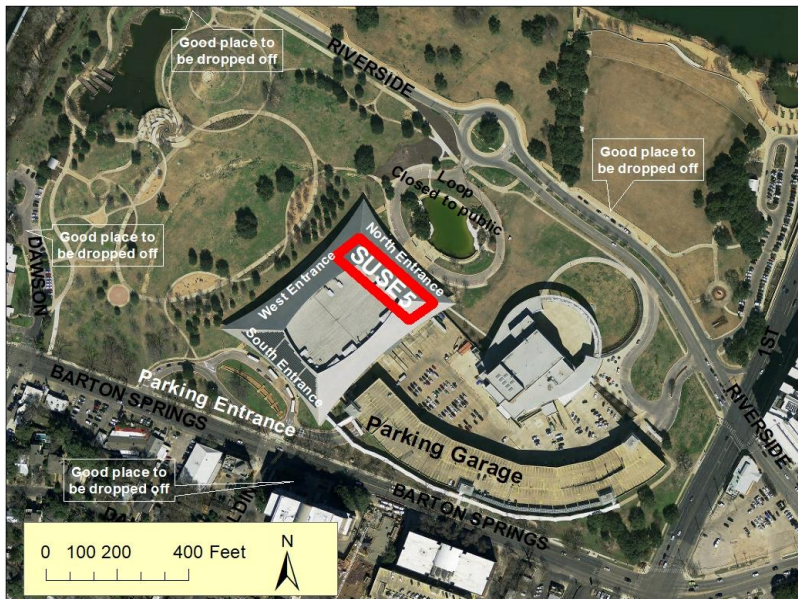
Palmer Events Center

900 Barton Springs Road Austin, TX

Phone:(512) 404-4500

<https://www.palmereventscenter.com>

Days 2-4: Th Feb 13 - Sat Feb 15



Lodging Information

Extended Stay America - Austin (~\$130 per night)

507 S 1st St, Austin, TX 78704

(512) 476-1818

<https://www.extendedstayamerica.com>

Stay Alfred 422 at The Lake (~\$150)

422 W Riverside Dr, Austin, TX 78703

(866) 232-3864

<https://www.stayalfred.com>

The Hotel Carpenter (~\$240)

400 Josephine St, Austin, TX 78704

(512) 682-5300

<http://carpenterhotel.com/>

AirBnB (~\$80+)

<https://www.airbnb.com>

Transportation

- Google maps has good local transit information, including arrival bus times.
- [Capital Metro](#) has bus route information and a trip planner. Metrobus fare is \$1.25 for a single ride or \$2.50 for a 24hr pass.
- Bike and scooter rental, walking and local buses are the easiest ways to move around if you are not too far. Taxis, Uber, and Lyft for the longer distance but be aware of traffic.

From the airport: Take [bus #20](#) from the airport to downtown, this route is fast and easy. The airport bus stop is located curb-side at arrivals (ABIA Lower Level). Metrobus fare is \$1.25 for a single ride or \$2.50 for a 24-hr pass.

To Austin Central Library: Library [paid parking](#) is limited and local traffic is pretty bad from 3:30 to 5:30 pm. Coming from/near the airport? Bus #20 takes you downtown just ½ mile (LaVaca/4th stop) to the library (or one block to the Bus 3 stop to the library).

To Palmer Events Center: paid parking available (\$8.00). Local traffic is pretty bad from 3:30 to 5:30 pm. Coming from/near the airport? bus #20 takes you downtown (VicMathias/AuditoriumShores stop) less than 1/3 mile to the Palmer Events Center.

Places to eat

Walking distance (+ or a bit farther) from Palmer Events Center

- [Terry Black's BBQ](#) is across the street for those interested in Austin's notoriety for its barbecue (specially the smoked brisket and other meats).
- Sandy's Hamburgers has been around since the 1940's, old fashion burgers, fries, ice cream...you get the picture. No website...but here is [the menu](#)
- [El Alma Restaurant Bar](#) has a fresh approach to Mexican antojitos, soups, salads, tacos, enchiladas, sides and desserts
- [Thundercloud Subs](#), affordable sandwich chain, "fresh, fast and healthy".
- (+) [Home Slice Pizza](#), this ain't NY, or New Haven, but this is pretty good pizza.
- (+) [Fresa's](#) (South First) is a bit of a hike, but has great mexican food with a chicken focus.
- (+) [Sway](#), fancy Thai food, really good, also on S. First street.
- (+) [Loro](#), asian smokehouse, fancy and interesting, cheap happy hour, more than a walk, but not much more.

(ask your local hosts if you want specialized suggestions)

Finding Austin's other amazing places to eat... oh my, that responsibility is for the experts. Check out some guides: [EaterAustin](#), [SoMuchLife](#), [AustinFoodBlogger](#), [VisitAustin](#), [BonAppetit](#)

Places to gather

Walking distance from Palmer Events Center

- [Fareground](#) is a modern food hall with six restaurants, beer, wine, cocktails & an outdoor picnic area
- [Bennu Coffee on Congress](#) is a 24-hr cafe with indoor/outdoor seating, popular with students
- [Aussie's](#) is an old-school grill and sports bar. Go fast, it's a dying breed.

SUSE5 Code of Conduct

Code of Conduct and Statement on Diversity and Inclusivity

The Symposium on Urbanization and Stream Ecology (SUSE) is an interdisciplinary meeting that aims to further the scientific study of stream ecosystems in urban landscapes with the goal of generating meaningful advancements in urban stream ecology that improve urban environments and their receiving waters. The interdisciplinary nature of SUSE attracts participants from diverse professional, scientific, and academic backgrounds, and we encourage participation by individuals from diverse cultural, gender, socio-economic, and racial backgrounds and a diversity of physical capabilities.

A guiding principle of SUSE is that diversity and inclusivity yield innovation, creativity, and representation essential for transformative scientific advancements and integrated management solutions. The benefits of diversity can serve the professional and personal growth of SUSE participants. As agreed upon by the Advisory Board, SUSE does not discriminate based on an individual's race, creed, color, ethnicity, national origin, religion, sex, sexual orientation, gender expression, physical or mental ability, or any other trait inherent to the identification of one's 'self'. Every SUSE is inclusive and intends to celebrate our differences to develop new ideas in urban stream ecology and management.

To achieve this guiding principle, SUSE has implemented the following code-of-conduct for all meetings (not exclusive of additional meeting-specific conduct requirements or statements):

1. SUSE is a harassment-free meeting. Any sexual harassment or other forms of harassment based on an individual's race, creed, color, ethnicity, national origin, religion, sex, sexual orientation, gender expression, physical or mental ability, or any other trait inherent to the identification of one's 'self' will not be tolerated.
2. SUSE has zero tolerance for any sexual violence or assault or any violent or non-violent action meant to harm or intimidate any individual during the meeting.
3. SUSE has zero tolerance for any discriminatory behavior based on race, creed, color, ethnicity, national origin, religion, sex, sexual orientation, gender expression, physical or mental ability, or any other trait inherent to the identification of one's 'self'.

Any person found to be violating the code of conduct or acting in any manner that conflicts with SUSE's overall goal to promote diversity and inclusivity will be asked to leave the meeting without any refund of their registration fees or expenses (e.g.,

accommodations). Any individual whose actions are in violation of local, state, or federal law will be referred to the local authorities in a manner consistent with Title IX regulations (https://www2.ed.gov/about/offices/list/ocr/docs/tix_dis.html) where applicable.

REPORTING

Any individual who is the target of or witnesses to any violation of the SUSE code-of-conduct or any action that is antithetical to the SUSE overall goal to promote diversity and inclusivity should feel empowered to report the incident to any meeting organizers (see the meeting program for designated contacts) or the SUSE Advisory Board (see the SUSE meeting program for designated contacts).

Please contact Robert F. Smith (smithr@lycoming.edu) or any of the members of the SUSE advisory board if you have any questions about this policy.

V.02 (Reviewed by the SUSE advisory board 11/20/2019)