INTRODUCTION

THE CHALLENGE:

Puget Sound is experiencing rapid environmental degradation due to polluted stormwater. The increase in impervious surface associated with our region’s development prevents rainwater from infiltrating and creates runoff, which then picks up pollutants from sidewalks and roadways and transports them into our sewers and waterways. Green Stormwater Infrastructure (GSI) has become an integral tool to mitigating polluted runoff by infiltrating and evaporating rainwater while at the same time providing additional community and environmental benefits.

The challenge is incorporating GSI into dense, urban neighborhoods where there is a lack of available space. Additionally, a significant percentage of the building stock in these areas are existing structures which have not triggered the updated stormwater codes, and there is a lack of financial incentives for these buildings that would catalyze investment into mitigating runoff.

The most readily available space for these buildings is the roof. A generally underutilized area, the roof is often the largest surface area for these buildings and offers a valuable space capable of mitigating stormwater runoff through rainwater capture or vegetative cover. The roof also offers the availability to reach internal operational systems, such as cooling towers, which provide an opportunity for stormwater reuse.

THE OPPORTUNITY:

What design processes, approaches, and solutions will help us empower existing buildings to install rainwater catchment systems or green roof solutions? Is it possible to utilize this water in building operations, thereby creating a financing mechanism to pay for these systems through reductions in potable water demand? What design ideas are replicable across varying building use cases and how does that impact the success of the project? What other value adds can we incorporate into the stormwater management system keeping in mind the overall goal of water conservation? Urban agriculture? Habitat for migratory species?

Recycling the Beauty of Puget Sound calls upon students, designers, and engineers of all disciplines to apply the power of design thinking to the urgent need for managing stormwater in the heart of Seattle and other urban centers. We seek innovative ideas for rainwater capture and reuse in an effort to sustainably invest in water conservation and pollution prevention of Puget Sound.

How can we adaptively reuse our existing infrastructure to transform Seattle back into a functioning ecosystem that manages its rainfall?
THE DESIGN SITE

THE SITE:
This challenge is ubiquitous to almost all existing buildings in dense urban areas like Seattle’s downtown core. However, we believe that applying ideas to real examples ensures feasibility and brings the solutions to life. Therefore, we are tasking teams to build their solutions around a specific site in downtown Seattle and Seattle 2030 District member Expeditors International has offered their global headquarters as the test bed for your ideas.

ABOUT EXPEDITORS:
Expeditors International is a global leader in supply chain solutions, transportation, customs & compliance, and warehousing & distribution. They were founded in 1979 and now have 17,400 employees at 322 locations in 103 countries. The company has made sustainability a primary focus of their business strategy and encourage their teams to find creative solutions in their everyday tasks.

ABOUT THE BUILDING:
Located at 1015 Third Avenue in downtown Seattle, the building was originally built in 1958 to house Seattle City Light. Expeditors bought the building in 1996 and completely renovated the structure. Three new floors were added to the top of the building as well additional floor space on the bottom three levels. The building now has 201,670 SF of floor space on a lot area of 26,640 SF. An estimated 418,500 gallons of rainwater fall on the site each year.

SPECIFIC HURDLES & CHALLENGES:
The roof has drainage pipes located around the perimeter which combine in the basement of the building. The cooling towers present the best use case for water reuse but are located back at the roof level. Are there opportunities or modifications to efficiently capture the rainwater and deliver to the cooling towers without expending a lot of energy?

The building features a gravel ballasted roof with 40 PSF load and additional 25 PSF for snow load. Does this impact or limit options for capture?

The third floor has three offsets of the building roof and there is some vegetation planted in the open space. Is it possible to capture rainwater here? Can some irrigation be offset using the captured supply?

*Detailed architectural plans are located at the end of this document.*
THE DETAILS

YOUR SUBMISSION SHOULD BE:
A game-changing proposal that provides innovative design solutions to capturing rainwater on rooftops and explores the opportunity for reuse. Your proposal should demonstrate an understanding of building owners’ desire for long-term solutions that take into account the summer dry period as well as ongoing maintenance concerns. Details on what to submit can be found in the Requirements section.

EVALUATION CRITERIA
- **Creativity**—Does the proposed solution utilize rainwater capture in a creative, original, and responsible manner? Does the design contribute or not infer with the building’s aesthetic?
- **Relevance**—Does your solution incorporate water reuse? Are there other tangible benefits to the building owner or community created by your design such as options for solar, habitat, or public space? Will other building owners/developers be encouraged to explore rainwater harvesting from seeing your solution?
- **Feasibility**—Can the solution be realized and replicated? Will the design function during the rainy and dry seasons? Does it contribute to managing stormwater on-site and preventing runoff? Does the design maximize rainwater capture using the entire building footprint?

ELIGIBILITY
This competition is open to both individuals and teams. Participants may contribute to only one proposal.

WHO SHOULD SUBMIT:
Creative thinkers who are passionate about providing solutions to managing stormwater, reducing stress on municipal infrastructure, and protecting Puget Sound. The competition is open to students and professional firms. Multidisciplinary teams are strongly encouraged. Possibilities include: architects, UX designers, civic leaders, educators, landscape designers, industrial designers, urban planners, design strategists, graphic designers, nonprofit leaders, students, and/or community groups.

RECOGNITION:
The winning team will have an opportunity to present at Seattle Design Festival in August, the largest design event in the Pacific Northwest, gathering 30,000+ attendees annually. Winners will also be announced at the Seattle 2030 District Vision Awards in October, an event featuring 400+ guests that make up the leaders in Seattle’s sustainable design and building operations community. All winning entries will be featured online and in print applications.
**DATES AND DETAILS**

**KEY DATES**
- **July 21**—Competition Closes
- **July 31**—Winners Announced
- **August 16–25**—Seattle Design Festival (Presentation date TBD)

**ANONYMITY**
The jury will review all entries anonymously. All submitted text and images must be free of any marks, logos or text that identifies authorship. The presence of such marks, logos or text are grounds for disqualification. Exhibition posters and publicity photos with credits will be included once winners are selected.

**OWNERSHIP AND COPYRIGHT**
Materials submitted to Seattle 2030 District will not be returned. By participating, all entrants grant the competition sponsors a non-exclusive license to post the entries online. In addition, entrants grant the competition sponsors a license to use competition materials in any media regarding the competition, now or hereafter known, including but not limited to: publication in newspaper, magazines, and exhibitions of the competition. Competition sponsors will not be required to pay any additional consideration or seek any additional approval in connection with such use. Submission to this program implies permission from the project owner releases Seattle 2030 District from any responsibility of seeking permissions [SF1] from owners, photographers, or any project-related stakeholders.

**RULES SUBJECT TO CHANGE**
All restrictions and requirements included in this Competition Brief Document constitute the competition rules. The competition sponsors retain the right to modify any and all aspects of this competition not specifically identified.

Seattle 2030 District does not have authority to award a design contract for this competition. Recycling the Beauty of Puget Sound is a design ideas competition with the intent to promote actionable solutions. This competition is in no way linked to a controlling government agency, utility, retailer, or production company.

**SUBMISSION**
Applicants must complete the online submission & payment via the platform found here: [https://bit.ly/2LhSy43](https://bit.ly/2LhSy43)

**ENTRY FEES**
- Students—$30
- Professionals—$100

**PRIZES**
- 1st—$1,500
- 2nd—$1,000
- 3rd—$500

**QUESTIONS**
Questions may be submitted via email at [stevenfry@2030districts.org](mailto:stevenfry@2030districts.org)
Please include in the subject line: Stormwater Competition Inquiry.

Questions may not be directed to or answered by jurors, sponsors or any other parties affiliated with the competition. Teams contacting these individuals and groups will be disqualified.
REQUIREMENTS

CONTENT:

• Page 1 – Cover with Iconic Draft Design and/or text
• Page 2 – Narrative Summary of design and proposed solutions
• Pages 2-6 (more if needed) – Presentation Deliverables
  – Site Context plan—Suggested scale 1:500 or 1:1000
  – Elevations—Suggested scale 1:50
  – Primary Sections – suggested scale 1:50
  – Enlarged Sections and Elevations (highlighted key areas) – suggested scale 1:10
  – Details – 1:5
  – Axonometrics providing information on key concepts
  – Diagrams
• Circulation
• Landscaping
  – Perspectives
• Primary site locations
• List of estimated materials required for design

Please note the Presentation Deliverables Set described above is a suggestion only. Participants can choose to use the entire list, a selection from it, or propose a completely different set that would explain their design in the most efficient manner.

COVER IMAGE:

• Two Individual JPGs of the PDF cover page
  – One should be formatted for web use – full size 2” by 3” no greater than 200 KB in size
  – Second should be formatted for print – Full size 17”x22” no greater than 10 MB in size

ADDITIONAL REQUIREMENTS:

• All materials must be submitted in English. Photo and Designs must be anonymous. Any indication of the design team’s name or affiliations in these components will be cause for disqualification.
Lori Blair  
Stormwater Project & Compliance Lead  
The Boeing Company  

Lori Blair has over 20 years of environmental experience and is currently the stormwater subject matter expert for The Boeing Company. Her primary stormwater focus is on the development and implementation of sustainable, green infrastructure strategies that create opportunities for internal and external collaborations. She has been the program lead on the advancement of permeable pavement science in partnership with WSU-Pullman and has extensive project management experience including managing complex storm water demonstrating compliance with multiple regulatory agency requirements.

Lori received a BS in Electrical Engineering from California State University, Long Beach. Her away from work passions include operating their small farm using sustainable practices including a major solar system and responsible weed management using goats and alpacas.

Myer Harrell—AIA, LEED AP BD+C Homes  
Principal & Director of Sustainability  
Weber Thompson  

Myer Harrell is a Principal and Director of Sustainability at Weber Thompson. He believes in the power of design to promote a sustainable future and manages the firm’s initiatives to that end. He was named the 2011 AIA Seattle Young Architect and serves on the AIA Seattle Board of Directors. Myer is also active in the USGBC Greenbuild Program Working Group and Education Events Committee. He received a Bachelor of Science in Architecture from the University of Maryland and a Master in Architecture at the University of Washington.

Jeff Kasowski  
Director of Engineering  
Wright Runstad & Company  

Jeff Kasowski is responsible for all engineering activities throughout the managed portfolio and an important team member for new development projects. Under Jeff’s leadership, four of the company’s managed properties achieved LEED-EB certification including the 1201 Third Avenue building which achieved LEED-ED Platinum. Jeff oversees all of the managed properties’ energy efficiency and carbon footprint reduction efforts, including participating in BOMA Initiatives such as Kilowatt Crackdown and the Sustainability Committee.
JUDGES (continued)

Jonathan Morley, PLA, LEED AP, ASLA
Principal, Landscape Architect
Berger Partnership

Jonathan is passionate for ecologically responsive urban design and functional landscapes that creatively provide opportunities for education and ultimately create places that contribute positively to their communities. His experience designing publicly accessed urban open spaces focuses on a wide range of project types including civic parks, plazas, streetscapes, mixed-use developments as well as academic institutions, many of which involve extensive community outreach, artist collaborations, coordination with multiple agencies and complex technical issues. His expertise melding urban design, ecology, and landscapes over structures enables him to balance technical challenges with stakeholder priorities, shaping some of Seattle’s most forward-thinking and award-winning projects.

Lily Siu, P.E.
Associate
Magnusson Klemencic Associates

Lily is an Associate at MKA specializing in sustainable water and storm drainage design in jurisdictions with some of the most stringent regulations. She graduated from Cornell University with her Bachelor of Science in Civil Engineering in 2010 and her Masters in Civil and Environmental Engineering in 2011. After joining MKA in 2011, Lily has worked on numerous net-zero stormwater discharge projects across the country ranging from office campuses up to 341,946 square feet to National Parks including the National Mall in Washington, D.C. She is also a member of MKA’s Water Resources Technical Specialty Team. Lily excels at providing innovative solutions within a site-specific context that not only meet jurisdictional requirements but also enhance the architectural vision.

Ellen Southard
Puget Sound Manager
Salmon-Safe

Ellen Southard leads Salmon-Safe’s urban program in Puget Sound, guiding community outreach and developing programs focused on municipalities. With 20 years of experience working with engineers, architects, and planners, Southard has been involved with a large number of community-based initiatives that support farmland preservation, historic resources, and cultural corridor formation.
SEATTLE 2030 DISTRICT

Founded in 2011, the Seattle 2030 District is a public-private nonprofit that works to break down market barriers to building efficiency in an effort to make Seattle and the surrounding communities more sustainable and contribute to the region’s livability, affordability, and environmental resilience.

Our 140+ members comprise building owners and developers, architects and engineers, and community groups. We engage these organizations to create partnerships, implement community-level solutions, and advocate for policies that support our sustainability goals of a 50% reduction in energy, water, and transportation by the year 2030.

We are focused on finding innovative ways to manage stormwater throughout the downtown core and provide technical and collaborative resources to members to increase adoption of GSI. The District is also exploring opportunities for private/public partnerships in an effort to manage communal stormwater, and serves as a conduit for discussions between building owners and the city/county to help improve the policies supporting stormwater management.

To get more information on our goals and work, please visit our website and our stormwater storymap found here.

BOEING

Boeing’s mission to connect, protect, explore, and inspire happens not just with our people and products, but also with our commitment to the planet.

Several years ago, we recognized the critical need for investments in partnerships to help solve some of our biggest environmental challenges, like water quality issues threatening Puget Sound. It is important we tackle the advancement of the science, technology, and application of green infrastructure (GI) with nature-based solutions to make the Puget Sound region healthier for everyone.

But no company, sector, or individual can solve environmental issues alone; in 2018, Boeing invested $2.5 million in environmental organizations to support stormwater and reforestation projects, such as advancing permeable pavement science, supporting the Salmon-Safe Aurora Bridge, and developing additional GI at our Auburn and South Park facilities.

By coming together for the common goal of protecting our environment right here at home, we can all make a difference and find better solutions for everyone.