

May 2019 NEWSLETTER

The Group

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May's Group meeting was held at the Bullitt Center in Seattle. Thank you Dale Baxmann for arranging a tour of this fascinating building. The attendees met at the Seattle Water Quality Lab and then boarded a minibus to be shuttled to the Bullitt Center. Those in attendance were: Donovan Aurand City of Spokane, Megan Bardsley Mamas Backflow, Dale Baxmann Seattle Public Utilities, Kathy Caldwell City of Redmond, Vice Chair Brian Gumke Northshore Utility District, Scott Hemingway WETRC, Past Chair Mick Holte City of Renton, Lance Hudkins SRC4, Chair Jeff Kobylk City of Edmonds, Bill Kuhlman Silver Lake Water & Sewer District, Treasurer Dennis McLaughlin Retired BAT, Dominic McLaughlin McLaughlin's Peninsula BF, Jason Moe Batman Testing, Andrew Piekarski Silver Lake Water & Sewer District, Webmaster Wednesday Smith City of Redmond, Lauren Imhoff City of Renton, Katie Nolan City of Renton, and Secretary Katarina Hirai Silver Lake Water & Sewer District.

The Group Treasurer Dennis reported the Group's account balance as of May 15th, 2019 was \$21,631.94. Costs this month included \$7,484.00 for the Lynnwood Convention Center rental deposit and \$517.00 for the minibus transportation for the Bullitt Center tour. The Group collected \$160.00 in dues for the month.

Our tour was led by Bob Minor, Lead Engineer for UNICO Properties, and Dylan Herndon, Water Operations for Water & Wastewater Services, LLC. The Bullitt Center is described as "the greenest commercial building in the world". We began our tour on the lowest floor of the building where all the "magic" happens. The building provides for roughly 170 people per day and is not linked to the City sewer system, but instead has 10 composters hooked up to foam toilets. Each composter has four segments that allows for the breakdown of the waste into bio solids and leachate. The bio solids are collected roughly once a year to be used as GroCo compost, while the removed leachate is used to restore local constructed wetlands. Wood shavings and worms are added to the top level of the composters and the mixture is raked regularly to aid in the breakdown of the waste.





The Bullitt System also harvests rainwater for all water uses in the building except fire suppression, which is provided by a fire main from the City. The rainwater, collected on the roof, is stored in a 56,000 gallon cistern in the basement. The raw water is then pumped through a 0.5 micron filter at around 6 gal/min, where it then goes through UV disinfection, then a 0.5 micron carbon filter, then through a calcite filter to increase the pH from around 5.0 to 7.5 and lastly is disinfected with chlorine. The now potable water is stored in two 500 gallon storage tanks. The building uses roughly 250 gallons of water a day. The greywater generated by the building collects in a 500 gallon tank in the basement and is pumped to driplines installed in vegetation beds installed on the outside of the second floor, completing the water cycle of the building. The tour continued up to the roof, where 20,000 sq. ft. of solar panels are installed to collect energy to run the entire building. The Group was surprised to hear that the building had no means to store the power it captured, but instead sold any excess energy back to the City or purchased energy from the City if it ran short. Thus, the building was equipped with two meters to determine the flow of electricity out and in. Internally, each breaker is then also metered as each tenant receives an allocated amount of energy each month and is billed for any overage of that amount. Also on the roof was a sophisticated weather station that allowed the buildings operating system to make decisions on

whether to open or close automated shades and/or open or close automated windows in order to keep the building at optimal temperature and energy efficiency.



In the end, costs of construction and maintenance were discussed and it turns out that the construction cost of the building was about 20% more and the cost of maintenance is equivalent to other buildings of its size. The true savings comes in the reduction of the building's environmental impact. The Group would like to thank both Bob and Dylan for their time and sharing their work with all of us. It was enlightening.

After the tour, the Group assembled to discuss old news. Vice Chair Brian Gumke announced that the location for the 2019 Seminar had been secured and that the Seminar would be held at the Lynnwood Convention Center. The cost for the Seminar will increase this year to \$120 for members and \$130 for non-members. It was requested that Brian look into hotels in the area for either Government Rate or possibly a Convention Center negotiated rate. Jason Moe requested that the Group's date of establishment, which is either 1974 or 1975, be placed on the Group's website along with the Group's mission statement. Wednesday Smith stated she would look into having this placed on the Group's website home screen. The Group returned to the Seattle Water Quality Labs on the provided minibus and the meeting was adjourned at 12:05pm.

The next meeting will be at Issaguah Public Works in Issaguah to discuss Public Education and Customer Service.

Hope to see you at the next meeting!

Katarina Hirai 2019 Group Secretary