

**Notes**  
**May 5, 2017**

The Wastewater Advisory Committee to the MWRA toured the Deer Island Treatment Plant

**Attendees/Contributors:**

**WAC:** Craig Allen (vice chair), Adriana Cillo, Karen Heinze, Taber Keally (chair), Mary Adelstein, Karen Golmer,

**Guests:** David Duest (MWRA), Gina DeNapoli, Charlie Jewell, (BWSC), Debra Darby (Organix), Lou Taverna (AB), Jay Thrasher, Max Rome (nu ecological design), Steve Changaris (NWRA), Bill Fadden (WSCAC), Xhao Su, George Wei Ni, Hadi Sayed (MIT), Rachel Borgatti (Fort Point)

**Staff:** Andreae Downs (WAC)

**FUTURE MEETING DATES/TOPICS**

**NEXT:** Friday, June 2, 10:30 am, Fiscal 2018 Planning, MAPC third floor conference room, 60 Temple Place, Boston

**PRESENTATIONS & DISCUSSION:**

David Duest, MWRA—on the DITP (Deer Island Treatment Plant)

- At 9.5 miles, the outfall tunnel is the longest in the US
- Digester gas is 98%+ beneficially used. Saves MWRA \$18-22million/year, meeting 64% of DITP's total energy needs of island (heat+power). Renewable on-site energy generation = 28%
  - Digester gas: 22%
  - Hydro 4%
  - Wind 1.2%
  - Solar 0.6%
- DI will soon get an energy evaluation of its combined heat & power plant. Now 60% efficient for heat, but 10% efficient for power. Could be 35-38% efficient for power—bring on-site renewable generation to 75%
- 240 dry tons of solids are sent to the digesters every day.
- 140 tons of solids are destroyed leaving 100 tons of solids remaining after digestion – all of which are sent to pellet plant for conversion to Class A fertilizer.
- 140 tons of Digester Gas (4.5 million cubic feet) produced per day is roughly 65% methane, 35% CO<sub>2</sub>
- Digester eggs are 140' tall, 90' wide & don't need cleaning given egg-shape which maximizes mixing effect and reduces solids build up.
- Pump stations: North Main and Winthrop represent 70% of flow, oldest stations on island but upgraded during the Boston Harbor Project.