

Meeting Summary April 13, 2018

#### **Council Members Present:**

Carlo Colella, Vice President for Administration and Finance (Chair) Steve Fetter, Associate Provost Maureen Kotlas, Executive Director, Department of Environmental Safety, Sustainability & Risk Scott Lupin, Assoc. Dir., Environmental Safety, Sustainability & Risk, and Director, Office of Sustainability Bryan Quinn, Director of Technical Operation, Department of Electrical & Computer Engineering David Cooper, Assistant Director of Operations, Division of IT Eric Wachsman, Professor, Materials Science and Engineering, and Director, Energy Research Center Mary-Ann Ibeziako, Director, Department of Engineering and Energy Jana VanderGoot, Assistant Professor, Architecture Logan Kline, Undergraduate Student, Environmental Science and Policy Ayana Jones, Graduate Student, Public Health

Guests:

Bob Reuning, Director, Facilities Management Stephen Reid, Environmental Planner, Facilities Planning Jason Baer, Assistant Director, Environmental Affairs

Meeting start time: 9:00am

### **Meeting Highlights**

### Welcome and Review of March 9, 2018 Meeting Minutes

Carlo Colella welcomed the Council members and called the meeting to order. Meeting summary from March 9, 2018 was approved.

#### **Identifying Council Priorities for 2018-2019**

Mark Stewart from the Office of Sustainability led the discussion on the results of the Council's 2017-2018 workshops. Topics identified for consideration included: 1) Carbon Neutral District Energy, 2) Marketing UMD's Sustainability Strengths, 3) Mitigating Rising Water Consumption and Cost, 4) Minimizing Single-Use Plastics, 5) Increasing Incentives for Sustainable Commuting, 6) Increasing Sustainable Purchasing. More information can be found as Appendix A.

Following group discussions, the Council recommended that new workgroups be formed by the Council and facilitated by the Office of Sustainability to further address: Mitigating Rising Water Consumption and Cost; and Increasing Incentives for Sustainable Commuting.

The Council also requested that an official statement be drafted (on behalf of the Council) in regards to Minimizing Single-Use Plastics. The Council also requested that the Office of Sustainability follow-up with members of the Global Sustainability Initiative to further evaluate opportunities to market UMD's sustainability education and research efforts.

### **University Sustainability Fund Projects**

Logan Kline, undergraduate representative, presented four University Sustainability Fund projects to the Council for review. Information about the projects are available as Appendix B.

The Council reviewed the following projects:

#### Next Generation for reACT

The Council voted on a request of \$47,500. APPROVED contingent on receiving the necessary approvals and funding to install reACT on a temporary or permanent basis on campus.

#### Aquaponics Research Center

The Council voted on a request of \$36,800. APPROVED contingent on receiving any necessary approvals for constructing the structure and system.

Environmental Justice Symposium The Council voted on a request of \$17,000. APPROVED.

<u>Active Transportation in Prince George's County</u> The Council voted on a request of \$14,560. DEFERRED.

### Water Use and Watershed Report

Stephen Reid, Environmental Planner, Facilities Planning presented the annual Water Use and Watershed Report by Facilities Management. Information can be found as Appendix C.

Adjourn 11:00am

Appendix A



# Identifying Council Priorities for 2018-2019

# Marketing UMD's Sustainability Strengths

# Mitigating Rising Water Consumption and Cost

# Minimizing Single-Use Plastics

# Increasing Incentives for Sustainable Commuting

# **Increasing Sustainable Purchasing**



Appendix B

# Sustainability Fund Review Committee Report 4/13

LOGAN KLINE, UNDERGRADUATE REPRESENTATIVE

### Recommended Projects Overview

- Next Generation Technologies for Sensing, Actuation, and Control of reACT - \$47,500
- Aquaponics Research Center \$36,800
- Environmental Justice Symposium \$17,000
- Active Transportation in Prince George's County \$14,560

## Next Generation Technologies for Sensing, Acting, and Control of reACT

- Funds Requested By: A. James Clark School of Engineering and the School of Architecture, Planning, and Preservation
- **Purpose:** Upgrade sensors, actuators, instrumentation of reACT house to use the house as an education tool on campus, in ongoing research on campus...
- **Committee Support:** Visible location on campus to show UMD student investments in sustainability, over 400 students participated in the design, potential for developing and assessing renewable technologies
- Grant Recommendation: Full funding of \$47,500



### Aquaponics Research Center

- Funds Requested By: Faculty and students in the Department of Environmental Science and Technology
- **Purpose:** Construction of a 1,200 square foot greenhouse including fish tanks and several hydroponic systems at the Research Greenhouse Complex
- Committee Support: Facility would be used for education, research, and food production; no other suitable locations
- Grant Recommendation: Full support minus \$200 for "miscellaneous" expenses - \$36,800

### Environmental Justice Symposium

- Funds Requested By: Community Engagement, Environmental Justice and Health (CEEJH), 17 for Peace and Justice
- Purpose: Funding an environmental justice symposium on May 4<sup>th</sup> and 5<sup>th</sup> with trainings on environmental monitoring
- **Committee Support:** Environmental justice is an important field that should be highlighted at UMD; student participation; training leads to long-term difference in participants
- Recommended Grant: Partial grant of \$17,000 to fund room rental costs, live streaming, and follw-up trainings

### Active Transportation in PG County

- Funds Requested By: School of Public Health
- Purpose: Study how active transportation (e.g. walking, biking, etc.) and associated environmental benefits change for the UMD and Prince George's County communities before and after Purple Line operations commence. Wish to fund sending out activity sensors and subsequent study
- Committee Support: Interesting study; would involve UMD students by helping them learn how to achieve sustainable transportation goals
- Recommended Grant: Partial grant of \$14,560\*

\*Had to remove funds for incentives

### FY18 Recap

- Green Terp and Green Chapter Programs
- Understanding and Navigating Environmental Justice
- Stamp Vertical Garden
- Teams SunnyD, CAPTURE, Oysters, & Omega
- Student Leadership in Campus Community Expanded

Appendix C



### **2017 Annual Water Update**

Facilities Management & Dept. of Environmental Safety, Sustainability & Risk



# 2014 Sustainable Water Use and Watershed Report

- Report Made13 Recommendations
- Six of them became High Priority initiatives
  - 1. Reorganize Roles/Responsibilities-Hire a Watershed Manager
  - 2. Address Copper Discharges
  - 3. Develop asset inventory
  - 4. Develop a stormwater master plan
  - Conduct water capture/reuse feasibility study
  - 6. Restore Campus Creek





UNIVERSITY SUSTAINABILITY COUNCIL SUSTAINABLE WATER USE AND WATERSHED REPORT

May 2014



💥 sustainableumd



### 1. Reorganize Roles/Responsibilities

- Watershed Manager is shown on the org chart under the Energy Management (Utilities) group within the Dept. Engineering & Energy
- Water and Stormwater Workgroup meet regularly to identify and address issues
- The Water Steering Committee meets as needed and provides resources



## 2. Copper Discharge Mitigation

- UMD holds discharge permit (#08-DP-2618) for condensate, cooling water, boiler blowdown
- Permit limits discharge of various pollutants
- Historically, UMD has regularly exceeded the permit limits for Copper
- DESSR and FM have been working to identify Copper sources and implement projects to reduce the discharges





MARYLAND

## 2. Copper Discharge Mitigation (cont.)

- Eppley Rec Center PoolPaks replaced in August 2017 & discharges rerouted to sanitary sewer
- Mitchell Bldg. design underway to reroute cooling tower discharges to sanitary sewer
- Main Admin. Bldg. cooling towers replaced in July 2017 and rerouted to sanitary sewer
- Marie Mount Hall design underway to redirect cooling tower discharges to sanitary sewer
- Campus-wide investigation ongoing to identify other potential sources



## 3. Develop Utility Asset Inventory

- Phase I was completed in Feb. 2018
  - Consisted of requirements gathering, database development, and some field survey
  - Field survey is proving to be challenging and existing records often don't match what is found in the field
- Phase II has begun
  - Consists almost entirely of field survey
  - Survey of storm drain system will be completed
  - Sanitary sewers will be surveyed next



### 3. Develop Utility Asset Inventory (cont.)

Home ♥ UMD Water Utilities - MES

Contents

Outfall Point

Inlet Point

Junctions

▲ UMD\_Sanitary

▲ UMD Potable

Esri , Report Abuse , Contact Us

#### New Map 🗸 📃 Stephen 🗸

Details 🚈 Add 👻 🛛 🔠 Basemap 🕴 🛐 Analysis 🔚 Save 👻 📟 Share 🛛 🖶 Print 👻 | 🚸 Directions 🚔 Measure 🔟 Bookmarks Find address or place





### 4. Develop Stormwater Master Plan

- Staff are in the process of validating all stormwater management facilities on campus
  - Documentation is required by MDE
  - Identify opportunities to upgrade existing facilities as part of forthcoming MS4 permit
- This effort will be an integral part of meeting the new MS4 permit 20% retrofit requirements



# 5. Conduct Water Capture/Reuse Feasibility Study

- In 2016, Sustainable Water provided a feasibility study to capture and reuse wastewater on a commercial scale.
- Water conservation and reuse is a stated goal of the President's Energy Initiative Task Force.
- Additional studies will be conducted when the Watershed Manager is hired.



### 6. Restore Campus Creek

- Design-Build contract has been awarded
- Significant design work has been completed and permits applications have been submitted to regulatory authorities
- Construction expected to begin end of summer/early fall





### **Water Permit Updates**

- 12-SW Permit (stormwater from industrial activities) – stormwater pollution prevention plan implemented in July 2017
- 08-DP (discharge of cooling water, boiler blowdown, condensate) renewal submitted in October 2016; permit administratively extended; awaiting new permit
- MS4 (storm sewer system)
  - Illicit discharge detection & elimination plan implemented in July 2017; screened 60% of all campus outfalls







### Water Permit Updates—New MS4 Permit

- Administratively extended until new permit issued
- MDE recently sent official notification that the new permit (Final Determination) will be released on March 30<sup>th</sup>. This has been delayed but we anticipate the permit very soon.
- The new permit will have a <u>20%</u> impervious area restoration requirement



### **Other Water-Related Projects**

- Vehicle washing discharges not permitted due to multiple permits and regulations; study underway to evaluate various options
- Underground stormwater structures (i.e. oil-water separators, grit traps, etc.) regular inspections and maintenance to begin in 2018; required by permits

