



DATE: September 11, 2017

TO: Council Sustainability Committee

FROM: Director of Utilities & Environmental Services

SUBJECT Pioneers for Sustainable Communities – Final Reports on Littering & Composting

RECOMMENDATION

That the Committee reviews and comments on this informational report.

SUMMARY

This report presents the final reports for the littering and composting projects of the Pioneers for Sustainable Communities program for the 2016/2017 academic year. The reports and videos produced by the program document the students' experiences, findings and recommended approaches to conducting outreach related to littering and composting.

BACKGROUND

Pioneers for Sustainable Communities (PFSC), originally called the Sustainable City Year Program (SCYP), is a partnership between the City and California State University East Bay (CSUEB) and included four projects for the 2016/2017 academic year. The projects are Trail Planning; Art Master Plan; Outreach to Increase Composting; and Outreach to Reduce Littering. For the littering and composting projects, CSUEB prepared reports for each academic quarter. The Fall 2016 quarter report was presented to the Committee on [March 13, 2017](#). Additional reports on this topic include an update to the Committee on [November 14, 2016](#), and a report from [June 28, 2016](#), when Council authorized a Memorandum of Understanding with CSUEB to establish the PFSC.

Hayward's General Plan, adopted by Council in 2014, includes the following policy regarding City partnerships with higher education institutions:

ED-4.1 – Town Gown and Communiversities Partnerships. The City shall collaborate with local colleges to develop strategic “town gown” or “communiversities” partnerships that enhance the Hayward community and economy, improve the overall educational experience of college students, and assimilate college students and graduates into the Hayward community.

DISCUSSION

This report summarizes the littering and composting reports (Attachments II, III, and IV) from the winter and spring quarters. The work completed by the Environmental Ethics class in the fall quarter was continued through the winter and spring quarters by students in the following courses:

Winter:

- COMM 4107: Relational Communication in Organizations - Assistant Professor Lonny Brooks
- COMM 3004: Quantitative Communication Research Methods - Assistant Professor Yung-I Liu
- MM66: Interactive Content Delivery - Assistant Professor Ian Pollock

Spring:

- COMM 4107: Relational Communication in Organizations - Assistant Professor Lonny Brooks
- HDEV 3203: Applying Theory and Methods of Human Development - Professor Jiansheng Guo

Survey – In early 2017, Assistant Professor Yung-I Liu's *Quantitative Communication Research Methods* class of 22 students conducted a survey to gather attitudes toward and perceptions of litter and its effects and the issues surrounding composting. 110 people responded to the survey via email, phone or in person. Complete survey results are in Attachment III and key findings included:

- 55% of respondents believe that laziness and lack of caring are perceived as the main reasons for litter.
- 18% of respondents believe that a lack of trash cans is a main reason for litter.
- 86% of respondents had heard the term "food scraps."
- 38% of respondents had heard the term "food soiled paper."
- 55% of respondents have a green organics cart.
- 84% of those without a green organics cart would be somewhat or very likely to use it if they had one.

Using Games as an Outreach Strategy – During the winter quarter Assistant Professors Brooks and Pollock led 39 undergraduate students and 7 graduate students in a project called *Changing Attitudes Toward Organic Waste Disposal and Composting Through Games*. The undergraduate students were divided into 7 teams and each developed a game concept. Each one is briefly described in Attachment III. The graduate students in a graduate seminar called *Interactive Content Delivery*, Assistant Professor Ian Pollock guided students to use human-centered design principles develop a full-scale prototype for a game booth. The game, called *Recycolution*, is similar to the arcade game known as *Dance-Dance Revolution*. It is a recycling sorting game where the participant watches images on a screen and steps on the appropriate

space on the “dance floor” to sort each item. The students suggested that this game could be used in a booth at a community event. They developed a promotional two-minute film that will be shown during the Committee meeting.

Students in the Spring quarter classes, *Relational Communication in Organizations* and *Applying Theory and Methods of Human Development*, built upon the work of the fall and winter quarter classes. The spring quarter project was titled *Using Communication to Reducing Littering and Illegal Dumping*, which is summarized in Attachment IV. Students became familiar with the City’s existing programs by participating in the Citywide cleanup event in May and a regular Keep Hayward Clean and Green Task Force cleanup event and observing City crews cleaning up illegally dumped materials. Based on class discussions and field experiences, students created videos, presentations and storyboards with ideas on how the City might raise awareness about the negative effects of illegal dumping

Hang Tags – To gain experience with implementing an outreach strategy, students hung simple brochures or hang tags on carts when they were out for collection day. Two versions of the hang tags are pictured below. Over several weeks in April and May, students distributed approximately 6,000 tags to single-family households.



Final Video – For the final deliverable, CSUEB will produce a five-minute film highlighting the projects associated with littering and composting with a particular emphasis on City employee, staff, volunteer and student experiences. This film should be available for viewing during the September 11 Committee meeting. As noted in Attachment IV,

“The film will communicate with authenticity the story of our collective efforts in the often messy, worthwhile and global saving effort of littering and composting worth our time and community building efforts. We used the Human centered design approach of IDEO to study the user experience in its many dimensions and facets in the collective experience of recycling, composting, illegal dumping and anti-littering messaging. The film and footage is vital in documenting how our urban lives are transforming into more conscious, environmentally aware citizens and members of an interconnected ecological landscape locally, regionally and on a global level.”

Year End Event – An end-of-year celebration for the PFSC Program was held on May 18, 2017, at Hayward City Hall. Attendees included Mayor Halliday and Council members Lamnin and Zermeno. Outside dignitaries included CSUEB President Morishita, CSUEB Provost Edward Inch, Acting Administrator for US EPA, Region 9, Alexis Strauss and Sustainability Advisor for US EPA, Region 9, Laura Bloch. Students made brief presentations including one about the *Recycolution* game, which was very well received.

STRATEGIC PRIORITIES

This agenda item does not directly relate to one of Council’s Strategic Initiatives.

FISCAL IMPACT

The cost of the 2016/2017 PFSC program was \$150,000, with the City and the University each paying \$75,000. The composting and littering projects cost \$37,500, which was paid from the Recycling and Stormwater Funds. In addition, Environmental Services staff spent time working with students and faculty from the University. The US Environmental Protection Agency has also contributed by providing funding to the University of Oregon to provide technical assistance to universities in California to assist with adoption of Oregon’s program model.

SUSTAINABILITY FEATURES

The PFSC Program supports several General Plan policies, including those that strive to reduce greenhouse gas emissions. In addition, the program has the following sustainability features or benefits:

- A primary goal of the composting project will be to reduce the volume of organic material sent to landfills and to improve the City’s overall solid waste diversion rate.
- Reducing litter will not only improve the community’s appearance, but will also help prevent trash from entering the storm drain system and creeks, which will help the City meet its trash reduction goals mandated by the Regional Water Quality Control Board.

NEXT STEPS

A key objective of the PFSC program was to expose students to real-world issues and work experiences and to explore new ways for the City to work with CSUEB. This objective was certainly accomplished. With consideration of the Committee's comments, staff may use ideas and strategies generated by the students in future outreach efforts related to minimizing littering and maximizing separation of organics for composting. Staff intends to maintain and build upon relationships that were developed with CSUEB staff and faculty, which may lead to additional collaboration in the future.

Prepared by: Erik Pearson, Environmental Services Manager

Recommended by: Alex Ameri, Director of Utilities & Environmental Services

Approved by:

A handwritten signature in black ink, appearing to read 'K. McAdoo', is positioned above a horizontal line.

Kelly McAdoo, City Manager