



Utility Services/Land Use/ Energy Development Committee

City of Arts & Innovation

TO: UTILITY SERVICES / LAND USE / ENERGY DEVELOPMENT COMMITTEE MEMBERS **DATE: FEBRUARY 12, 2018**

FROM: PUBLIC WORKS DEPARTMENT **WARDS: ALL**

SUBJECT: UPDATE ON CITY OF RIVERSIDE PLAN FOR COMPLIANCE WITH THE STATE TRASH AMENDMENTS

ISSUE:

Receive an update on status of City efforts to comply with State Trash Amendments, trash capture pilot project, and causes of trash/litter.

RECOMMENDATION:

That the Utility Services/Land Use/Energy Development Committee receive information on City actions to comply with State Trash Amendments, trash capture pilot project, and causes of trash/litter.

BACKGROUND:

The State Trash Amendments require all agencies with regulatory authority over 'Priority Land Uses' to install Full Capture Systems and/or implement programs that achieve Full Capture System equivalency. The objective of these regulations is to fully capture all trash from Priority Land Use areas by no later than the year 2030. On October 24, 2017, the Riverside City Council selected Track 2 as the City's method to comply with the State Trash Amendments. Staff committed to provide updates to the Utility Services/Land Use/Energy Development Committee on actions taken to comply with the requirements of Track 2.

DISCUSSION:

Track 2 requires submission of an Implementation Plan to the Regional Water Quality Control Board by November 30, 2018. This plan will provide details on actions the City will take to fully capture trash within Priority Land Use areas.

Implementation Plan

The Implementation Plan will provide a detailed plan of action showing how the City will comply with the State Trash Amendments within a 10-year period. This plan will describe:

- A. Final Priority Land Use areas;

- B. The combination of full capture controls selected and the rationale for the selection;
- C. The rationale for how the selected combination of controls is designed to achieve Full Capture System Equivalency;
- D. The methodology used to assess trash levels within Priority Land Use areas; and
- E. How Full Capture System Equivalency will be demonstrated (potential development of a before/after monitoring program)

Staff has prepared a Request for Proposals (RFP) for qualified vendors to submit their proposals for the Track 2 Implementation Plan. The RFP is being reviewed internally and will be placed on the City's Bid System website to ensure a fair and competitive process that will allow selection of a qualified vendor.

Priority Land Uses

Priority Land Uses are areas with the following land uses or characteristics: High-density residential (10 units/acre or more), Industrial, Commercial, Mixed Urban, Public transportation stations. Staff have been conducting a parcel-level assessment of the City to define areas subject to the requirements of the State Trash Amendments. Additional analysis is ongoing but initial efforts have yielded a reduction of two square miles from the initial approximation of 15 square miles of Priority Land Uses. Attachment 1 shows Priority Land Use areas of the City.

Trash Capture Pilot Project

In July 2017, staff initiated a pilot project where four trash capture devices were installed in storm drain catch basins: two were installed at the intersection of Ottawa Ave. and Loma Vista St. in Ward 2 and two at the intersection of Madison St. and Evans St. in Ward 4. Through this project, staff performed weekly observations of the devices from August 1, 2017 till January 31, 2018 to better understand the maintenance implications of the devices and how they perform during rain events. These devices are closely monitored to ensure the proper function of the storm drain system.

Results of the study are still being compiled but the attached presentation contains photographs of accumulated trash on a monthly basis. One objective of this pilot project was to understand how the devices would perform during rain events considering trash and debris may fill the devices. On January 9, 2018, over an inch of precipitation was experienced in the City of Riverside and staff closely observed the performance of the devices. Two of the devices became clogged with debris/trash and went into bypass mode. The bypasses functioned properly and allowed runoff to enter the storm drain system.

Causes of Trash/Litter

Literature regarding sources of trash and litter are very informing. In 2009, the national nonprofit, Keep America Beautiful (KAB), conducted a national study to better understand litter across America. The report is comprehensive and describes that, while littering rates have decreased over the past 40 years, it persists as a critical social and environmental issue. Some notable findings of their study are as follows:

1. 81% of littering occurred with notable intent;

2. Cigarette butts are the most frequently littered items, followed by food remnants, food wrappers, and beverage containers;
3. Over 51 billion pieces of litter appear on U.S. roadways each year;
4. Individuals under 30 are more likely to litter than older individuals; and
5. The presence of litter in a community decreases property values by 7%

KAB's study contains wide-ranging investigations and findings on litter that are of great importance to understanding trash capture in the City of Riverside. In reviewing their report, and other reports cited below, three key concepts help in understanding the behavioral aspects of littering:

1. *Convenience and availability of trash receptacles.* Research shows that most people will not litter if there is an available trash receptacle nearby. KAB's study showed that when a receptacle was 10 feet or closer, 12% of individuals would litter. As the distance to a receptacle increased, the number of individuals littering also increased. It is thought by some that litterers just don't care but studies find that many people do care but if it's not convenient to dispose of their waste, litter will occur.
2. *Presence of litter.* Studies show that the more litter found in a certain area, the more likely individuals are to litter in those areas. This 'litter begets litter' condition can make controlling litter in already dirty environments increasingly difficult.
3. *Role of societal norms.* Many studies show that social norms play a significant role in the individual behavior regarding littering. Certain areas with social sanctions against littering (e.g. seeing individuals or groups that pick up litter, seeing piles of swept up litter) can cause changes to the individual behavior of those considering littering.

Understanding the 'why' of littering will help in the development of programs that can reduce the amount of litter in the City. The proper disposal of trash in receptacles and programs that set out to capture trash prior to getting in the street and storm drains can serve as Full Capture System Equivalency as required by the State Trash Amendments.

References

Action Research, "Littering Behavior in America: Results of a National Study," for KAB. 2009.

Schultz, P., Bator, R., Large, L., Bruni, C., & Tabanico, J. (2013). Littering in Context Personal and Environmental Predictors of Littering Behavior. *Environment and Behavior*. 45. 35-59. 10.1177/0013916511412179.

Kallgren, C., Reno, R., & Cialdini, R. (2000). A Focus Theory of Normative Conduct: When Norms Do and Do not Affect Behavior. *Personality and Social Psychology Bulletin*. Vol 26, issue 8, pp. 1002-1012.

FISCAL IMPACT:

There is no fiscal impact with receiving and filing this report.

Prepared by: Kris Martinez, Public Works Director
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availability of funds: Adam Raymond, Chief Financial Officer/City Treasurer
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Attachments:

1. Priority Land Uses Map
2. Presentation