**Waste 2017 Abstract Submission**

**Changing illegal dumping behaviour using intrinsic and extrinsic motivators (MUDs)**

*My presentation is relevant to the following topic area(s).*

🞎 Circular economy 🞎 Overseas experiences

🞎 Collection (inc MUD’s, transient population areas) 🞎 Problem/Hazardous waste (inc asbestos, clinical &

🞎 Container Deposit Schemes medical, ocean plastics, paint, tyres etc)

🞎 Economics (inc business cases, data gathering, 🞎 Product Stewardship

monitoring performance) 🞎 Regional issues

🞎 Education (inc community engagement) 🞎 Recycling (inc CRC’s, collection)

🞎 E-Waste 🞎 Regulations and levies

🞎 Grants (outcomes and processes) 🞎 Social enterprise

🞎 Infrastructure (inc major waste grants, EfW, organics) 🞎 State based issues (eg. Fit for the Future NSW)

🞎 Innovative projects (case studies preferred) 🞎 Technology

🞎 Landfill (inc operations, regulations) 🞎 Tenders and contracts

🟏 Litter and/or illegal dumping (inc litter initiatives) 🞎 Other 🞎 Organics (inc collection, processing)

**Presenter information**

**Presenter name:** Marion Winkler

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**Biography**

Marion has 16 years of project management experience at local, regional and state levels of government. As a member of the Australasian Evaluation Society, Marion has expertise in monitoring and evaluation and brings insights in behaviour change theory to illegal dumping projects at Lane Cove Council. Having worked for the NSW Department of Primary Industries and Kangaroo Island Natural Resource Management Board SA, Marion has skills in strategic planning and implementation at varying scales.

The current Waste Avoidance Project applies social learning theory to apartment dwellers in Lane Cove, aiding illegal dumping reduction and diversion of waste from landfill. Marion designed, manages and implements the project and monitoring and evaluation plans. Results are positive.

**Abstract Summary**

Lane Cove Council implemented a behaviour change program during 2016 to reduce illegal dumping outside apartment buildings. Illegal dumping in target areas reduced by 32% compared to 2015 as a result of project initiatives. Findings show that attentiveness and constructive communication materials had the most significant impact on residents taking responsibility for already dumped items. Intrinsic motivation tactics were used to effectively reduce first time dumping; project work continues to address this issue. We showcase how the greatest behaviour change was made through use of extrinsic motivators. The project was funded by the NSW EPA’s Better Waste and Recycling Fund.

**Abstract**

What motivates responsible disposal of household waste by apartment dwellers? Can Councils divert illegal dumping away from landfill by handing responsibility back to dumpers? Lane Cove Council’s Waste Avoidance Project was designed to find answers.

In 2016, Council implemented an 18 month behaviour change project to investigate and address significant dumping outside apartment buildings. Historically, 9 dumps on average were collected from the high density hotspots every month at Council’s expense. Dumping was constant, frequently grew in size and was unsightly. Dumping appeared because it was accepted as a social norm, and more active intervention was necessary. Many items might have been recycled or re-homed if appropriately disposed of by their owners.

The Waste Avoidance Project aimed to increase use of free Council services and re-homing options over illegal dumping. The overall result was a 32% reduction in dumping during the first year.

Council implemented a prevention and intervention program founded on social learning theory (Bandura 1977), social cognitive theory (Bundara 1997) and various theories of behaviour change (Kaplan and Kaplna 1989, Prager 2012). We found most residents willingly do the right thing once aware of the correct options.

We analysed the types of household items being dumped outside unit buildings to determine the major causes for items being left on kerbsides. The major causes of dumping appeared to be convenience and the desire to provide items to a new home. Anecdotal evidence strongly supports the “good intentions” of some residents wishing to re-home useful items. These residents left items on the street to allow others to benefit from them. Insufficient knowledge of Council’s Clean Up and re-homing services was therefore apparent.

To provide the alternative options we distributed positive promotions (enhancing intrinsic motivation to use correct services), gave immediate feedback when conditions were breached; and broadcast advice about disciplinary actions and preferred alternatives. These tools ensured awareness was raised about favourable behaviour as well as simultaneously explaining the reasons and options. Secondary publicity through Real Estate Agencies and Strata groups further promoted the services available.

To manage illegally dumped items, warnings about pending investigations and messages about “the right thing to do” had immediate results. “Illegally dumped materials” stickers, flagging tape and delivery of notices about pending investigations seemed to have the most impact.

Residents responded immediately to direct interventions. This suggested that attentive and personalised responses from Council have substantial impact and value. The interactivity is likely to have enhanced the community experience and influenced social normality. Anecdotal evidence appears to support this idea.

Council restricted volumes of illegal dumps; only 30 (10%) of the 299 illegal dumps between February and September 2016 increased in size in any way following intervention. “Under investigation” DL flyers were used and resulted in immediate dump removal in 41% of cases. This result minimised collection effort and costs for Council. Street amenity was immediately improved.

To increase diversion of useful items from landfill, motivation to responsibly dispose of unwanted items was enhanced using positive messages and constructive communication. Green signage, up-beat and positive messages, sharing positive outcomes and offering messages of thanks were all used as ways to increase the uptake of free re-homing services, and reduce illegal dumping on the streets. Future marketing of the champion or hero mentality will be done using verbal and no-verbal praise, e.g. messages of thanks sent via SMS to those pre-booking a Clean Up service.

The most impact on short term behaviour change overall seems to have been caused by the immediacy of Council’s response/intervention and the accurate targeting of communiqués about alternatives at the time of investigation. Like a parent instilling discipline in a child, constant conversation, explanation, cautions and positive reinforcement (coupled with disciplinary reminders) can work.

References:

Bandura, A., 1977. Social Learning Theory. Prentice Hall, Englewood Cliffs, NJ.

Bandura, A., 1997. Self-efficacy: the exercise of control. W.H. Freeman, New York.

Kaplan, S., Kaplan, R., 1989. The Visual Environment: public participation in design and planning. *Journal of Social Issues* 45, 59-86

Prager, K., 2012. Understanding behaviour change - How to apply theories of behaviour change to SEWeb and related public engagement activities. Report for SEWeb LIFE10 ENV-UK-000182