



KEEP TRUCKEE MEADOWS
B E A U T I F U L

2018 Two Season Waste Characterization Study Results
Coordinated by the Washoe County Health District

WASHOE COUNTY
HEALTH DISTRICT

ENHANCING QUALITY OF LIFE

KTMB removed **31 tons** in Sparks FY18-19

- ✓ Truckee River Cleanup, 4 sites, 232 volunteers removed 12,410 lbs of trash, 40,600 lbs of weeds, 5 bikes and 5 gallons of oil
- ✓ Great Community Cleanup, 3 sites, 75 volunteers removed 11,500 bags of trash and 7,750 lbs of green waste



Rock Park, April 2019

Education & Christmas Trees FY18-19

- ✓ Christmas Tree Recycling at Shadow Mt. Sports Complex: 110 volunteers collected 2,718 trees
- ✓ Ten Adopters through KTMB's Adopt-A-Spot program engaged 407 volunteers who removed 43 bags of trash
- ✓ KTMB's education program reached 790 youth and 423 adults in Sparks



Shadow Sports Complex, January 2019

Value of KTMB Volunteers in Sparks*

- 824 volunteers who worked ~2,250 Volunteer Hours
- Independent Sector value of a volunteer hour in Nevada = \$22.61
- **\$50,872.50**

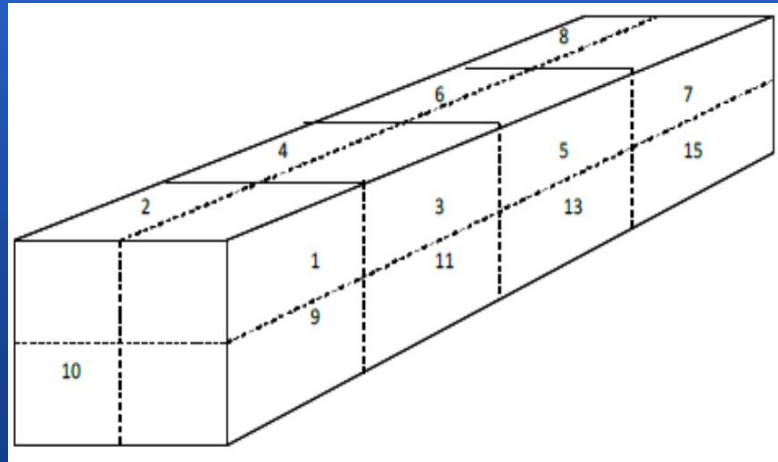
**Does not include value of KTMB education program or in kind support secured for programs (i.e.: fencing, signage, trash bags, pickers, etc.)*

Methodology

- The intent of the solid waste composition and characteristics analysis is to identify, quantify and characterize MSW material types received for disposal at the Washoe County transfer stations.
- The waste generation categories specifically identified and sampled as part of this composition and characterization study include residential, commercial, self-hauled waste, and industrial and C&D materials.

Sample Cell Selection

- To randomly select samples, each load was divided into a 16-cell grid as depicted below. A randomizer tool was used to assign a primary and alternative cell for sampling. The sample was taken from the randomly assigned cell for each selected load.



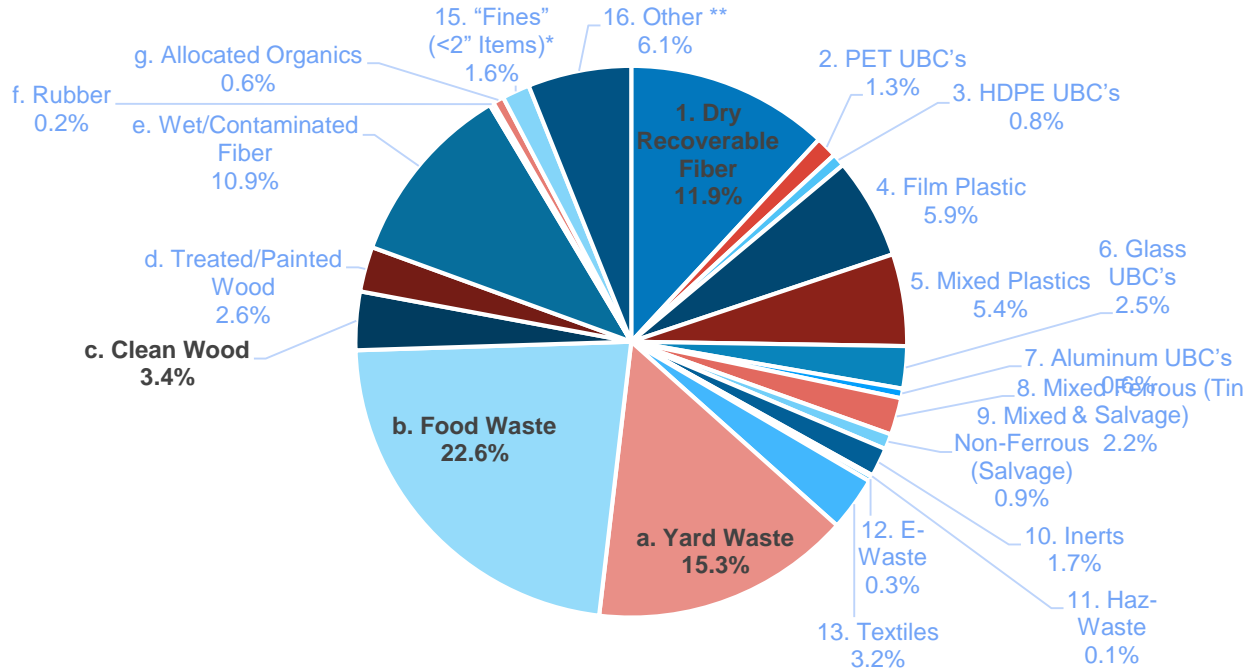


SVM crew sorting and categorizing a garbage sample.

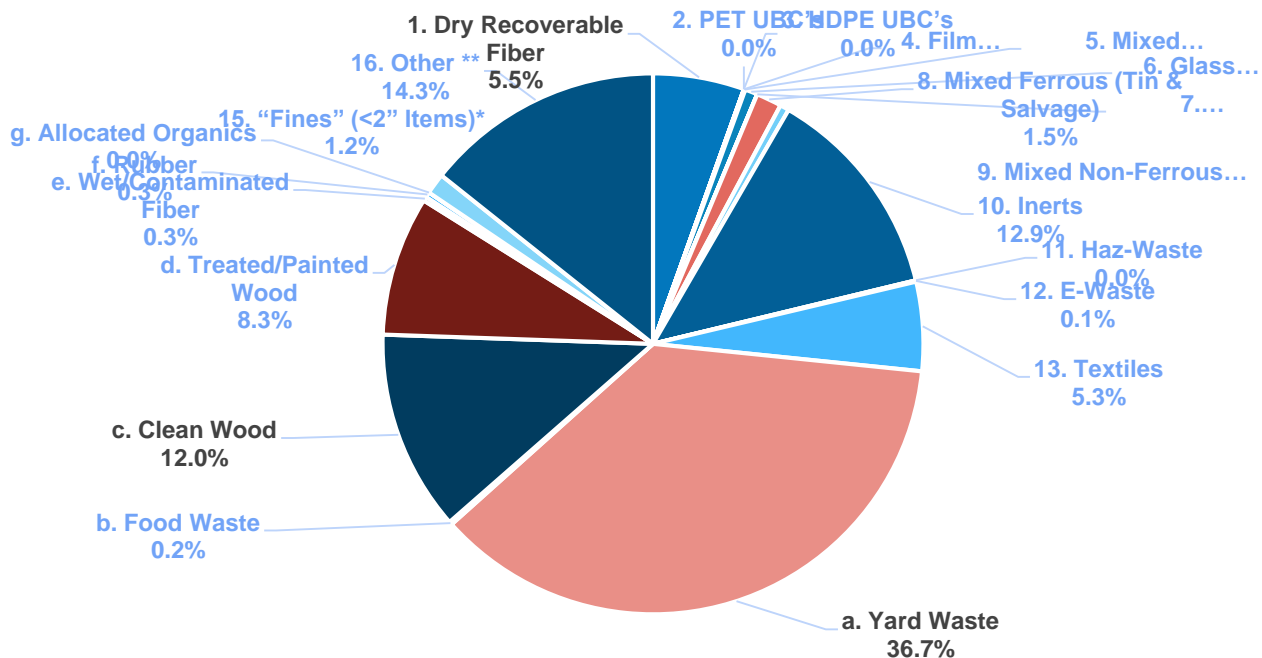


During the Fall study, leaves constituted a large volume of the samples from all sectors, including this residential garbage load.

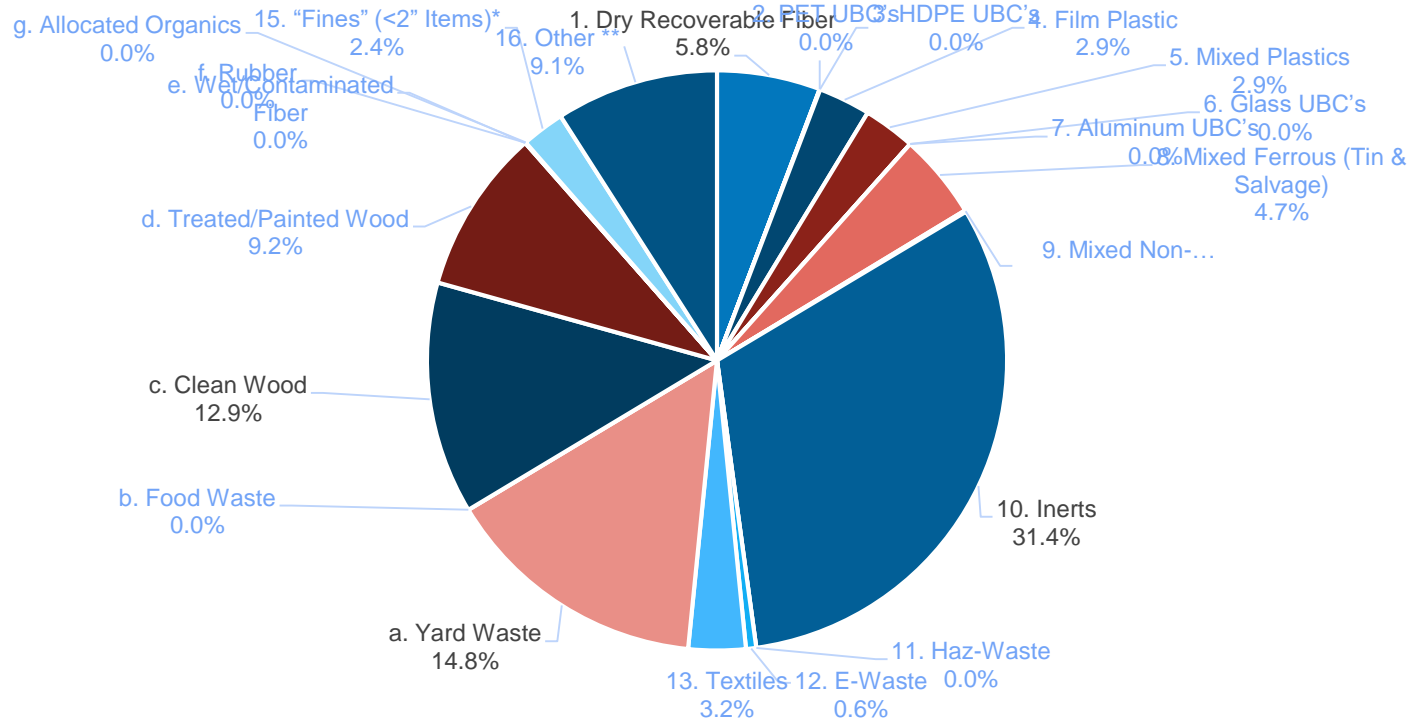
Incline, Stead & Sage Transfer Stations Residential & Commercial MSW Spring & Fall Data Results



Incline, Stead & Sage Transfer Stations Self-Haul MSW Spring & Fall Data Results



Telegraph Transfer Station Construction & Demolition Debris Spring & Fall Data Results



Study Highlights

The combined MSW samples from the Incline, Stead, and Sage (Reno) transfer stations revealed the following highlights:

- An extraordinary amount of organic materials (55%) generated from the seven organics sub-categories.
- A considerable amount (12%) of clean, dry, recoverable fiber (paper) that may be targeted for recycling collection programs and marketed on post-consumer recycling markets.
- Notable amounts of PET plastic, glass, aluminum, and mixed-ferrous metal are available for source-separation, recovery, and sale.

Self-Haul Findings

The combined **Self-Haul** samples from the Incline, Stead, and Sage (Reno) transfer stations revealed the following highlights:

- For the purposes of recycling and reuse, the Self-Haul material is rich in both inert and organic materials, at 13% and 58%, respectively.
- Inert materials may be processed and reused as aggregate, road base, erosion control, and other uses.
- Organic materials can be separated and composted, or used as feedstock in renewable energy processes.

C&D Findings

- The Telegraph Construction and Demolition Debris facility yielded high percentages of inert and organic materials, as expected:
- 31% Inert materials (Dirt, brick, rock, tile, concrete, etc.)
- 37% Organic materials, mostly yard waste and clean wood.

Recommendations

- The relatively low percentages of traditionally targeted post-consumer materials (paper, bottles and cans) indicates many waste generators are diverting recyclable materials by participating in local recycling collection and salvage opportunities.
- Even so, the County may initiate educational and promotional programs to improve upon the recovery and recycling of:
 - PET Plastic
 - Aluminum Beverage Containers
 - Container Glass
 - Mixed Ferrous Metals

Recommendations

- Organic materials are typically of low-value and present costly challenges for source-separation, collection, and processing.
- Washoe County waste could be delivered to the Fulcrum Bio-Energy renewable energy plant in Mustang for the production of jet fuel, when the facility is complete.
- The County can help to support and sustain the renewable energy operation by developing policies that:
 - Assure the availability of high-organic, low-moisture MSW for renewable energy processes.
 - Develop programs to encourage the separation and collection of high-moisture content food-waste for the creation of animal-feed and/or organic compost.