

Appendix D

DISPOSAL REPORTING SYSTEM WORKING GROUP

Report to the Legislature— A Comprehensive Analysis of the Integrated Waste Management Act Diversion Rate Measurement System

August 2, 2001

Appendix D

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Disposal Reporting System Working Group

Meeting 1

POTENTIAL CRITERIA FOR EVALUATING DRS RECOMMENDATIONS

| Criteria | High Importance | Medium Importance | Low Importance |
|--|------------------------|--------------------------|-----------------------|
| Cost Effectiveness | | | |
| Ease of Use | | | |
| Resource Requirement | | | |
| Usefulness/Acceptability/Suitability | | | |
| Data Availability | | | |
| Effectiveness (does it increase accuracy) | | | |
| Data Accuracy/Reliability | | | |
| Maintainability (cost to maintain in dollars and people) | | | |
| Availability to Cross Check (Verify data) | | | |
| Flexibility | | | |
| Compatibility | | | |

Criteria Descriptions for Disposal Reporting System Solutions

The basic goal of the recommendations for improving the Disposal Reporting System is to provide standard solutions approved by the CIWMB that can be used by rural jurisdictions and large and small urban jurisdictions. Please review the criteria and consider how you would rank the importance of these criteria to you.

1. Cost Effectiveness

The cost of implementing a solution should not be overly burdensome to an agency, facility,

2. Ease of Use and Maintenance

A solution should be readily and easily implemented and maintained by an agency, landfill, hauler and/or jurisdiction.

3. Resource Requirement

The solution should take into account the personnel, equipment and fiscal impact.

The increase in accuracy should be worth the cost to implement it.

4. Usefulness/Acceptability/Suitability

The solution should fulfill the AB 2202 requirements of:

- Address deficiencies of the system
- Improve accuracy of the system
- Improve implementation and streamline the reporting system

5. Data Availability/Reliability

The data obtained should be easily obtained, readily available and reliable.

6. Effectiveness

The solution should increase the accuracy of the data collected.

7. Availability to cross check

The data should be verifiable.

8. Flexibility

The solution should be flexible enough to adjust for unforeseen situations such as extraordinary events (Acts of God, civil unrest, etc.). The solution should also be flexible enough to accommodate local conditions. Data should have multiple purposes.

9. Compatibility

The solution should be compatible with existing local/state requirements. The solution should also be compatible with existing equipment and programs.

SELF HAUL STUDY DATA

The following pages are excerpted from the Final Report prepared for the Statewide Waste Disposal Characterization Study conducted by the Board in 1999.

In the first excerpt, we have highlighted the definition of self haul and the explanation of how it was employed in the study.

The second excerpt is the entire portion of the report that deals with self haul waste, to include charts showing material composition percentages.

The entire 1999 Statewide Waste Disposal Characterization Study Final Report can be found on the Board's website at:

<http://www.ciwmb.ca.gov/Publications/default.asp?pubid=824>

3.2.2 Statewide Percentages and Tonnages by Sector

Table 1 shows the estimated contributions of each sector of the waste stream.

Table 1: Statewide Tonnage and Percentage of Waste Stream by Sector ¹

| | Est. Percent of Waste Stream | + / - | Est. Tons Statewide |
|----------------------------------|---------------------------------|-------|------------------------|
| Commercial | 48.8% | 2.8% | 17,358,359 |
| Residential | 38.1% | 3.0% | 13,525,504 |
| <i>Single-family residential</i> | 28.0% | 2.7% | 9,955,739 |
| <i>Multifamily residential</i> | 10.0% | 1.6% | 3,569,888 |
| Self-haul | 13.1% | 1.5% | 4,651,591 |
| <i>Commercial self-haul</i> | 10.5% | 1.4% | 3,739,696 |
| <i>Residential self-haul</i> | 2.6% | 0.4% | 911,770 |
| Totals | 100.0% | | 35,535,453 |

Confidence intervals calculated at the 90% confidence level. Numbers may not total 100% due to rounding. Tonnages are based on 1998 tons reported, by region, through California's Disposal Reporting System.

Commercial waste and residential waste include all waste collected and transported to disposal sites by professional waste haulers. Self-haul waste includes both commercial and residential wastes that are hauled by an individual or business other than a professional waste hauler whose primary business is not hauling waste (e.g. an individual, a construction company, a landscaper, etc). For purposes of this study, commercial self-haul loads were those hauled by a commercial enterprise (e.g. contractor, landscaper, etc.) even if the source of the waste was a residential dwelling. Residential self-haul loads were those loads transported by a resident from their home to the disposal site.

Residential waste from all sources accounts for 40.7% of the state's waste stream, while 59.3% comes from non-residential sources. Overall, the per-capita disposal rate for the state was approximately 1.07 tons per person per year in 1999. The per-capita disposal rate for residential waste (single-family and multifamily) was approximately 0.41 tons per person per year. Table 2 shows the residential per-capita disposal rates for each region.

Table 2: Annual Residential Disposed Waste Per-Capita for Each Region

| Region | Population | Residential Disposed Tons | Per-Capita Residential Disposal Rate (Tons per Resident per Year) |
|------------------|-------------------|------------------------------|---|
| Coastal | 1,363,600 | 604,752 | 0.44 |
| Bay Area | 6,256,500 | 2,655,988 | 0.42 |
| Southern | 20,340,700 | 8,437,874 | 0.41 |
| Mountain | 698,910 | 172,179 | 0.25 |
| Central | 4,590,800 | 1,646,735 | 0.36 |
| Statewide | 33,250,510 | 13,517,528 | 0.41 |

Numbers may not total exactly due to rounding.

¹ These figures were calculated based on vehicle surveys conducted in 1999 and applied to statewide tonnage as reported in 1998 through the CIWMB's Disposal Reporting System.

3.5 Self-haul Waste

The objective of this portion of the study was to characterize California’s self-haul waste stream at the state level. Self-haul waste is waste that is transported to the disposal site by someone whose primary business is not waste hauling. This section presents composition findings for the statewide self-haul sector as a whole, as well as findings for commercial self-haul waste and residential self-haul waste.

As shown in Table 7 (page 13), the self-haul waste sector accounts for approximately 13.1% of California’s municipal solid waste stream. The commercial self-haul and residential self-haul subsectors make up approximately 10.5% and 2.6% respectively.

As part of the vehicle survey, drivers of vehicles carrying commercial self-haul waste to disposal facilities were asked to classify the activity that generated the waste. Based on their responses, it is estimated that commercial self-haul waste from construction and demolition activities represents 4.5% of the overall waste stream. Similarly, waste from roofing and waste from landscaping respectively represent about 1.1% and 0.9% of the overall waste stream. Other miscellaneous commercial activities generate commercial self-haul waste that represents approximately 4.1% of the overall waste stream. These results are shown in Table 9 (page 14).

3.5.1 The Overall Self-Haul Sector

Description of Samples

Samples of self-haul waste were obtained from randomly selected vehicles at the landfills and transfer stations employed in this study. Approximately 50 samples were obtained from each of the five regions of the state, and approximately ten samples were obtained from each disposal facility that was visited. One third of the samples were from residential sources, and two thirds from commercial self-haul sources. Overall self-haul composition results are based on an average of the two subsectors, weighted at the regional level. (See Appendix A for a description of the methods used in selecting, sorting, and analyzing samples.)

Table 3 presents the numbers of samples that were obtained in each region and each season. For the whole state, 247 samples of self-haul waste were sorted (118 in the winter and 129 in the summer).

Table 3: Self-Haul Samples Obtained, by Region and Season

| | Coastal | Bay Area | Southern | Mountain | Central | Totals |
|---------------|-----------|-----------|-----------|-----------|-----------|------------|
| Winter | 20 | 20 | 30 | 28 | 20 | 118 |
| Summer | 30 | 29 | 20 | 17 | 33 | 129 |
| Totals | 50 | 49 | 50 | 45 | 53 | 247 |

Sampling was conducted at five disposal facilities in each region of the state. See Table 71 for the names and locations of the disposal facilities that were visited.

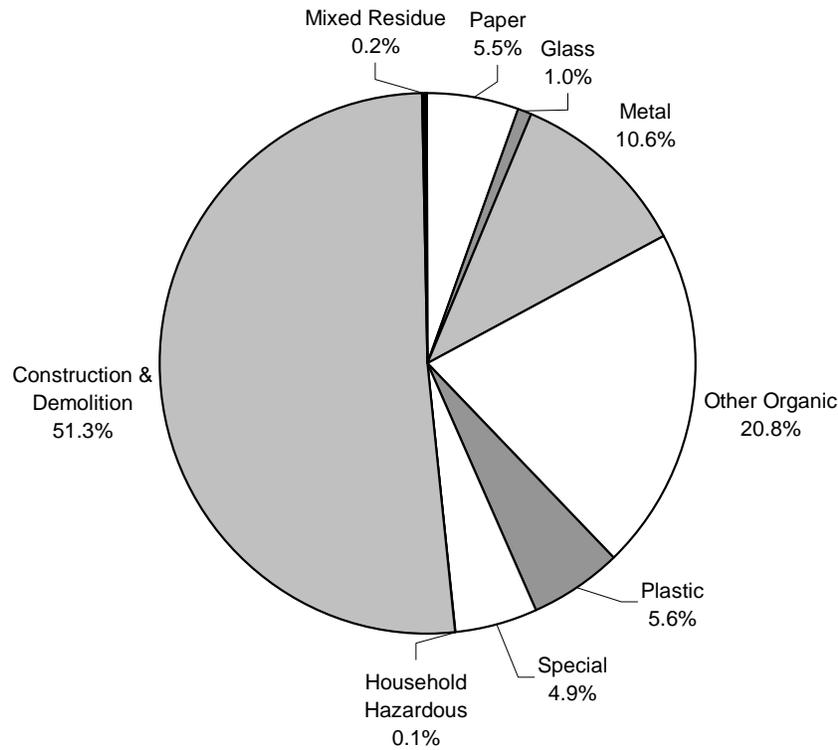
Overall Self-Haul Waste Composition

Composition results for self-haul waste are illustrated in

Figure 1 and described in detail in Table 5. Notably, the broad material class *Construction and Demolition Waste* accounts for more than half of disposed self-haul waste, as would be expected since a

large segment of self-haul tonnage comes from construction, demolition, and roofing activities (see Table 9 on page14). The broad class *Other Organic Waste* is the next largest category, accounting for approximately a fifth of self-haul waste. (See Table 5 for lists of materials belonging to each class, and see Appendix B for definitions of the materials.)

Figure 1: Overview of Overall Self-Haul Waste



Lumber, a component of the *Construction and Demolition Waste* class, is the single most prevalent material in self-haul waste, comprising 19.2%. In all, materials from the *Construction and Demolition Waste* class, the *Metals* class, and the *Other Organics* class comprise nine of the top ten materials in this subsector.

Table 4 presents the materials that account for approximately 75% of self-haul waste. (See Appendix B for definitions of the materials.) Table 5 presents the detailed composition results for the overall self-haul sector.

Table 4: Most Prevalent Materials in Overall Self-Haul Waste

| Material Type | Est. Pct. | Est. Tons | Cumulative Pct. |
|---|------------------|------------------|------------------------|
| Lumber | 19.2% | 894,304 | 19.2% |
| Remainder/Composite Construction & Demolition | 10.6% | 491,760 | 29.8% |
| Remainder/Composite Organic | 8.2% | 379,753 | 38.0% |
| Other Ferrous Metal | 6.7% | 312,257 | 44.7% |
| Concrete | 6.7% | 311,396 | 51.4% |
| Gypsum Board | 5.5% | 254,298 | 56.8% |
| Prunings & Trimmings | 5.4% | 250,685 | 62.2% |
| Asphalt Roofing | 5.4% | 249,748 | 67.6% |
| Leaves & Grass | 4.0% | 185,816 | 71.6% |
| Bulky Items | 3.9% | 182,372 | 75.5% |

Any differences between *cumulative percent* figures and the sum of *estimated percent* figures are due to rounding.

During sorting, visual observations were made on the *Leaves and Grass* material type to estimate the portion of the category that each represented in the overall self-haul sector. During the winter, leaves made up 66% of the *Leaves and Grass* category by weight, and grass made up 34% of the category. During the summer, leaves comprised only 49% of the category, while grass comprised 51%. In self-haul samples from both seasons considered together, leaves represented 54%, and grass represented 46%. These should be considered rough estimates, and no statistical treatment was applied to the breakdown of *Leaves and Grass* into its two components.

Table 5: Composition of Overall Self-Haul Waste

| | Est. Pct. | + / - | Est. Tons | | Est. Pct. | + / - | Est. Tons |
|--|------------------|--------------|------------------|--------------------------------------|------------------|--------------|------------------|
| Paper | 5.5% | | 253,949 | Other Organic | 20.8% | | 966,563 |
| Uncoated Corrugated Cardboard | 1.9% | 0.3% | 89,165 | Food | 1.1% | 0.3% | 50,086 |
| Paper Bags | 0.2% | 0.1% | 10,000 | Leaves & Grass | 4.0% | 1.4% | 185,816 |
| Newspaper | 0.2% | 0.0% | 10,768 | Prunings & Trimmings | 5.4% | 1.7% | 250,685 |
| White Ledger Paper | 0.1% | 0.0% | 3,099 | Branches & Stumps | 0.9% | 0.4% | 43,537 |
| Colored Ledger Paper | 0.0% | 0.0% | 170 | Agricultural Crop Residues | 0.0% | 0.0% | 259 |
| Computer Paper | 0.0% | 0.0% | 144 | Manures | 0.0% | 0.0% | 0 |
| Other Office Paper | 0.6% | 0.3% | 26,444 | Textiles | 1.2% | 0.6% | 56,428 |
| Magazines and Catalogs | 0.2% | 0.0% | 7,313 | Remainder/Composite Organic | 8.2% | 2.5% | 379,753 |
| Phone Books and Directories | 0.1% | 0.0% | 2,739 | | | | |
| Other Miscellaneous Paper | 1.3% | 0.4% | 60,603 | Construction & Demolition | 51.3% | | 2,386,666 |
| Remainder/Composite Paper | 0.9% | 0.2% | 43,504 | Concrete | 6.7% | 1.7% | 311,396 |
| | | | | Asphalt Paving | 0.7% | 0.4% | 32,040 |
| Glass | 1.0% | | 47,713 | Asphalt Roofing | 5.4% | 1.7% | 249,748 |
| Clear Glass Bottles & Containers | 0.2% | 0.1% | 10,032 | Lumber | 19.2% | 2.2% | 894,304 |
| Green Glass Bottles & Containers | 0.3% | 0.3% | 15,890 | Gypsum Board | 5.5% | 1.4% | 254,298 |
| Brown Glass Bottles & Containers | 0.0% | 0.0% | 2,247 | Rock, Soil & Fines | 3.3% | 1.4% | 153,120 |
| Other Colored Glass Bottles & Containers | 0.0% | 0.0% | 93 | Remainder/Composite C&D | 10.6% | 2.2% | 491,760 |
| Flat Glass | 0.2% | 0.1% | 10,478 | | | | |
| Remainder/Composite Glass | 0.2% | 0.1% | 8,973 | Household Hazardous Waste | 0.1% | | 5,951 |
| | | | | Paint | 0.1% | 0.1% | 3,960 |
| Metal | 10.6% | | 495,084 | Vehicle & Equipment Fluids | 0.0% | 0.0% | 6 |
| Tin/Steel Cans | 0.1% | 0.1% | 6,607 | Used Oil | 0.0% | 0.0% | 411 |
| Major Appliances | 0.3% | 0.2% | 15,077 | Batteries | 0.0% | 0.0% | 436 |
| Other Ferrous Metal | 6.7% | 1.4% | 312,257 | Remainder/Composite HHW | 0.0% | 0.0% | 1,138 |
| Aluminum Cans | 0.0% | 0.0% | 1,136 | | | | |
| Other Non-Ferrous Metal | 0.3% | 0.1% | 12,861 | Special Waste | 4.9% | | 226,125 |
| Remainder/Composite Metal | 3.2% | 0.9% | 147,146 | Ash | 0.0% | 0.0% | 1,408 |
| | | | | Sewage Solids | 0.0% | 0.0% | 0 |
| Plastic | 5.6% | | 258,164 | Industrial Sludge | 0.0% | 0.0% | 0 |
| HDPE Containers | 0.3% | 0.1% | 11,753 | Treated Medical Waste | 0.1% | 0.1% | 3,007 |
| PETE Containers | 0.0% | 0.0% | 2,088 | Bulky Items | 3.9% | 1.2% | 182,372 |
| Miscellaneous Plastic Containers | 0.1% | 0.0% | 2,860 | Tires | 0.8% | 0.7% | 37,037 |
| Film Plastic | 0.7% | 0.1% | 33,824 | Remainder/Composite Special Waste | 0.0% | 0.0% | 2,300 |
| Durable Plastic Items | 3.7% | 1.1% | 173,948 | | | | |
| Remainder/Composite Plastic | 0.7% | 0.3% | 33,691 | Mixed Residue | 0.2% | 0.1% | 11,377 |
| | | | | | | | |
| Sample count: 247 | | | | Totals | 100.0% | | 4,651,591 |

Confidence intervals calculated at the 90% confidence level. Percentages for materials may not total 100% due to rounding.

3.5.2 Commercial Self-Haul Waste

The objective of this portion of the study was to characterize California’s commercial self-haul waste stream at the state level. This sector includes waste hauled to a disposal site by a commercial enterprise, such as a landscaper or contractor, even if the source of waste was residential dwellings.

Description of Samples

Samples of commercial self-haul waste were obtained from randomly selected vehicles at the landfills and transfer stations employed in this study. Approximately 32 samples were obtained from each of the five regions of the state, and approximately six samples were obtained from each disposal facility that was visited. (See Appendix A for a description of the methods used in selecting, sorting, and analyzing samples.)

Table 6 presents the numbers of samples that were obtained in each region and each season. For the whole state, 162 samples of commercial self-haul waste were sorted (79 in the winter and 83 in the summer).

Table 6: Commercial Self-Haul Samples Obtained, by Region and Season

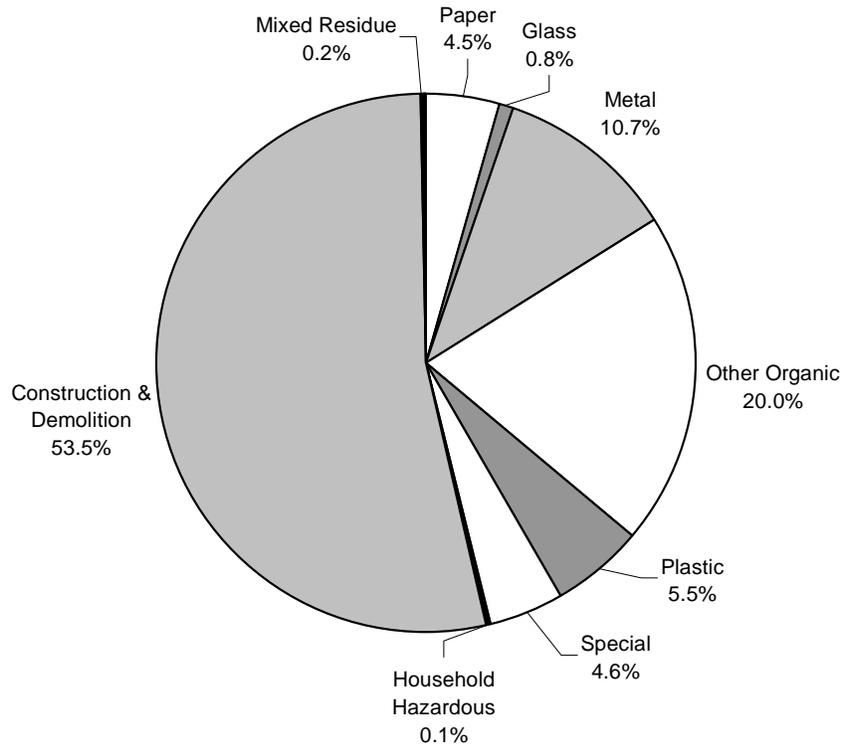
| | Coastal | Bay Area | Southern | Mountain | Central | Totals |
|---------------|-----------|-----------|-----------|-----------|-----------|------------|
| Winter | 17 | 16 | 19 | 15 | 12 | 79 |
| Summer | 19 | 20 | 12 | 12 | 20 | 83 |
| Totals | 36 | 36 | 31 | 27 | 32 | 162 |

Sampling was conducted at five disposal facilities in each region of the state. See Table 71 for the names and locations of the disposal facilities that were visited.

Commercial Self-Haul Waste Composition

Composition results for commercial self-haul waste are illustrated in Figure 2 and described in detail in Table 8. The broad material class *Construction and Demolition Waste* accounts for more than half of disposed commercial self-haul waste, and the broad class *Other Organic Waste* accounts for a fifth of it. (See Table 8 for lists of materials belonging to each class, and see Appendix B for definitions of the materials.)

Figure 2: Overview of Commercial Self-Haul Waste



Lumber, a component of the *Construction and Demolition Waste* class, is the single most prevalent material in commercial self-haul waste, comprising 19.4%. In all, materials from the *Construction and Demolition Waste* class, the *Metals* class, and the *Other Organics* class (primarily yard waste) comprise nine of the top ten materials in this subsector. Table 7 presents the materials that account for approximately 77% of commercial self-haul waste. (See Appendix B for definitions of the materials.) Table 8 presents the detailed composition results for the commercial self-haul sector.

Table 7: Most Prevalent Materials in Commercial Self-Haul Waste

| Material Type | Est. Pct. | Est. Tons | Cumulative Pct. |
|---|------------------|------------------|------------------------|
| Lumber | 19.4% | 724,030 | 19.4% |
| Remainder/Composite Construction & Demolition | 11.0% | 409,860 | 30.3% |
| Remainder/Composite Organic | 8.2% | 306,248 | 38.5% |
| Concrete | 7.1% | 265,650 | 45.6% |
| Other Ferrous Metal | 7.0% | 260,762 | 52.6% |
| Gypsum Board | 6.0% | 226,196 | 58.6% |
| Asphalt Roofing | 6.0% | 223,226 | 64.6% |
| Prunings & Trimmings | 5.0% | 185,348 | 69.6% |
| Leaves & Grass | 4.0% | 150,325 | 73.6% |
| Durable Plastic Items | 3.9% | 145,966 | 77.5% |

Any differences between *cumulative percent* figures and the sum of *estimated percent* figures are due to rounding.

Table 8: Composition of Commercial Self-Haul Waste

| | Est. Pct. | + / - | Est. Tons | | Est. Pct. | + / - | Est. Tons |
|--|------------------|--------------|------------------|--------------------------------------|------------------|--------------|------------------|
| Paper | 4.5% | | 168,986 | Other Organic | 20.0% | | 747,404 |
| Uncoated Corrugated Cardboard | 1.6% | 0.4% | 60,833 | Food | 0.9% | 0.9% | 33,197 |
| Paper Bags | 0.2% | 0.1% | 8,323 | Leaves & Grass | 4.0% | 3.5% | 150,325 |
| Newspaper | 0.2% | 0.1% | 7,151 | Prunings & Trimmings | 5.0% | 5.1% | 185,348 |
| White Ledger Paper | 0.0% | 0.0% | 1,427 | Branches & Stumps | 0.8% | 0.9% | 31,429 |
| Colored Ledger Paper | 0.0% | 0.0% | 74 | Agricultural Crop Residues | 0.0% | 0.0% | 0 |
| Computer Paper | 0.0% | 0.0% | 15 | Manures | 0.0% | 0.0% | 0 |
| Other Office Paper | 0.3% | 0.5% | 10,108 | Textiles | 1.1% | 1.5% | 40,857 |
| Magazines and Catalogs | 0.1% | 0.1% | 3,948 | Remainder/Composite Organic | 8.2% | 5.6% | 306,248 |
| Phone Books and Directories | 0.0% | 0.1% | 1,716 | | | | |
| Other Miscellaneous Paper | 1.2% | 0.9% | 46,720 | Construction & Demolition | 53.5% | | 1,999,103 |
| Remainder/Composite Paper | 0.8% | 0.3% | 28,671 | Concrete | 7.1% | 3.6% | 265,650 |
| | | | | Asphalt Paving | 0.8% | 1.0% | 29,326 |
| Glass | 0.8% | | 31,704 | Asphalt Roofing | 6.0% | 3.7% | 223,226 |
| Clear Glass Bottles & Containers | 0.1% | 0.1% | 3,668 | Lumber | 19.4% | 4.2% | 724,030 |
| Green Glass Bottles & Containers | 0.4% | 0.7% | 13,150 | Gypsum Board | 6.0% | 2.8% | 226,196 |
| Brown Glass Bottles & Containers | 0.0% | 0.0% | 779 | Rock, Soil & Fines | 3.2% | 3.1% | 120,815 |
| Other Colored Glass Bottles & Containers | 0.0% | 0.0% | 20 | Remainder/Composite C&D | 11.0% | 4.0% | 409,860 |
| Flat Glass | 0.2% | 0.2% | 8,137 | | | | |
| Remainder/Composite Glass | 0.2% | 0.3% | 5,949 | Household Hazardous Waste | 0.1% | | 4,184 |
| | | | | Paint | 0.1% | 0.2% | 3,508 |
| Metal | 10.7% | | 401,635 | Vehicle & Equipment Fluids | 0.0% | 0.0% | 0 |
| Tin/Steel Cans | 0.1% | 0.1% | 4,760 | Used Oil | 0.0% | 0.0% | 0 |
| Major Appliances | 0.4% | 0.6% | 13,485 | Batteries | 0.0% | 0.0% | 189 |
| Other Ferrous Metal | 7.0% | 2.9% | 260,762 | Remainder/Composite HHW | 0.0% | 0.0% | 487 |
| Aluminum Cans | 0.0% | 0.0% | 692 | | | | |
| Other Non-Ferrous Metal | 0.3% | 0.1% | 10,258 | Special Waste | 4.6% | | 170,730 |
| Remainder/Composite Metal | 3.0% | 2.1% | 111,678 | Ash | 0.0% | 0.0% | 822 |
| | | | | Sewage Solids | 0.0% | 0.0% | 0 |
| Plastic | 5.5% | | 206,942 | Industrial Sludge | 0.0% | 0.0% | 0 |
| HDPE Containers | 0.2% | 0.1% | 8,437 | Treated Medical Waste | 0.0% | 0.0% | 0 |
| PETE Containers | 0.0% | 0.0% | 1,210 | Bulky Items | 3.7% | 2.5% | 136,610 |
| Miscellaneous Plastic Containers | 0.1% | 0.1% | 1,966 | Tires | 0.8% | 1.8% | 31,633 |
| Film Plastic | 0.6% | 0.3% | 23,417 | Remainder/Composite Special Waste | 0.0% | 0.1% | 1,665 |
| Durable Plastic Items | 3.9% | 2.6% | 145,966 | | | | |
| Remainder/Composite Plastic | 0.7% | 0.7% | 25,945 | Mixed Residue | 0.2% | 0.2% | 9,009 |
| | | | | | | | |
| Sample count: 162 | | | | Totals | 100.0% | | 3,739,696 |

Confidence intervals calculated at the 90% confidence level. Percentages for materials may not total 100% due to rounding.

3.5.3 Residential Self-Haul Waste

The objective of this portion of the study was to characterize California’s residential self-haul waste stream at the state level. This sector includes waste that is hauled to a disposal site by a resident from their home.

Description of Samples

Samples of residential self-haul waste were obtained from randomly selected vehicles at the landfills and transfer stations employed in this study. Approximately 17 samples were obtained from each of the five regions of the state, and approximately three to four samples were obtained from each disposal facility that was visited. (See Appendix A for a description of the methods used in selecting, sorting, and analyzing samples.)

Table 9 presents the numbers of samples that were obtained in each region and each season. For the whole state, 85 samples of residential self-haul waste were sorted (39 in the winter and 46 in the summer).

Table 9: Residential Self-Haul Samples Obtained, by Region and Season

| | Coastal | Bay Area | Southern | Mountain | Central | Totals |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Winter | 3 | 4 | 11 | 13 | 8 | 39 |
| Summer | 11 | 9 | 8 | 5 | 13 | 46 |
| Totals | 14 | 13 | 19 | 18 | 21 | 85 |

Sampling was conducted at five disposal facilities in each region of the state. See Table 71 for the names and locations of the disposal facilities that were visited.

Residential Self-Haul Waste Composition

Composition results for residential self-haul waste are illustrated in Figure 3 and described in detail in Table 11. The broad material class *Construction and Demolition Waste* accounts for more than one-third of disposed residential self-haul waste, and the broad class *Other Organic Waste* accounts for a quarter of it. (See Table 11 for lists of materials belonging to each class, and see Appendix B for definitions of the materials.)

Figure 3: Overview of Residential Self-Haul Waste

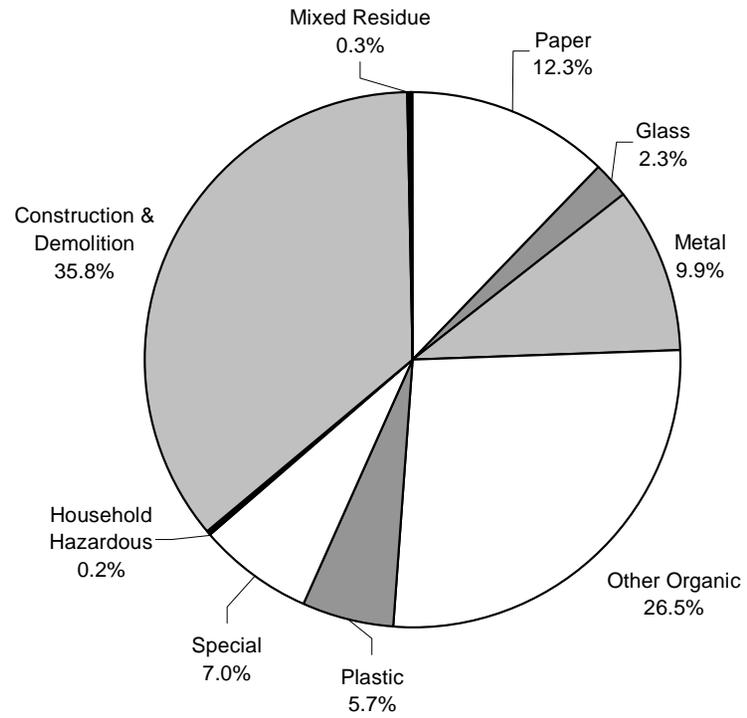


Table 10: Most Prevalent Materials in Residential Self-Haul Waste

| Material Type | Est. Pct. | Est. Tons | Cumulative Pct. |
|--|------------------|------------------|------------------------|
| Lumber | 18.3% | 166,415 | 18.3% |
| Prunings & Trimmings | 8.5% | 77,642 | 26.8% |
| Remainder/Composite Organic | 8.0% | 72,778 | 34.7% |
| Remainder/Composite Construction & Demolition | 7.8% | 70,860 | 42.5% |
| Bulky Items | 5.9% | 53,366 | 48.4% |
| Other Ferrous Metal | 4.8% | 44,098 | 53.2% |
| Remainder/Composite Metal | 4.4% | 40,499 | 57.7% |
| Uncoated Corrugated Cardboard | 4.0% | 36,580 | 61.7% |
| Leaves & Grass | 3.8% | 34,773 | 65.5% |
| Concrete | 3.7% | 34,106 | 69.2% |

Any differences between *cumulative percent* figures and the sum of *estimated percent* figures are due to rounding.

Table 11: Composition of Residential Self-Haul Waste

| | Est. Pct. | + / - | Est. Tons | | Est. Pct. | + / - | Est. Tons |
|--|------------------|--------------|------------------|--------------------------------------|------------------|--------------|------------------|
| Paper | 12.3% | | 111,703 | Other Organic | 26.5% | | 241,695 |
| Uncoated Corrugated Cardboard | 4.0% | 1.9% | 36,580 | Food | 2.4% | 0.9% | 22,263 |
| Paper Bags | 0.2% | 0.0% | 1,462 | Leaves & Grass | 3.8% | 1.4% | 34,773 |
| Newspaper | 0.5% | 0.1% | 4,763 | Prunings & Trimmings | 8.5% | 3.5% | 77,642 |
| White Ledger Paper | 0.3% | 0.1% | 2,480 | Branches & Stumps | 1.6% | 1.6% | 14,822 |
| Colored Ledger Paper | 0.0% | 0.0% | 144 | Agricultural Crop Residues | 0.0% | 0.0% | 418 |
| Computer Paper | 0.0% | 0.0% | 204 | Manures | 0.0% | 0.0% | 0 |
| Other Office Paper | 2.7% | 2.3% | 24,814 | Textiles | 2.1% | 0.6% | 18,998 |
| Magazines and Catalogs | 0.5% | 0.2% | 4,834 | Remainder/Composite Organic | 8.0% | 1.8% | 72,778 |
| Phone Books and Directories | 0.2% | 0.1% | 1,392 | | | | |
| Other Miscellaneous Paper | 1.7% | 0.5% | 15,404 | Construction & Demolition | 35.8% | | 326,434 |
| Remainder/Composite Paper | 2.2% | 0.7% | 19,625 | Concrete | 3.7% | 1.5% | 34,106 |
| | | | | Asphalt Paving | 0.0% | 0.0% | 0 |
| Glass | 2.3% | | 21,068 | Asphalt Roofing | 1.0% | 0.7% | 9,455 |
| Clear Glass Bottles & Containers | 1.1% | 0.5% | 9,706 | Lumber | 18.3% | 4.5% | 166,415 |
| Green Glass Bottles & Containers | 0.3% | 0.2% | 2,453 | Gypsum Board | 1.3% | 0.5% | 11,558 |
| Brown Glass Bottles & Containers | 0.2% | 0.1% | 2,250 | Rock, Soil & Fines | 3.7% | 2.1% | 34,041 |
| Other Colored Glass Bottles & Containers | 0.0% | 0.0% | 114 | Remainder/Composite C&D | 7.8% | 3.2% | 70,860 |
| Flat Glass | 0.3% | 0.2% | 2,559 | | | | |
| Remainder/Composite Glass | 0.4% | 0.2% | 3,985 | Household Hazardous Waste | 0.2% | | 2,224 |
| | | | | Paint | 0.0% | 0.0% | 205 |
| Metal | 9.9% | | 90,694 | Vehicle & Equipment Fluids | 0.0% | 0.0% | 10 |
| Tin/Steel Cans | 0.2% | 0.1% | 2,265 | Used Oil | 0.1% | 0.1% | 662 |
| Major Appliances | 0.1% | 0.1% | 555 | Batteries | 0.0% | 0.0% | 371 |
| Other Ferrous Metal | 4.8% | 1.4% | 44,098 | Remainder/Composite HHW | 0.1% | 0.1% | 976 |
| Aluminum Cans | 0.1% | 0.0% | 613 | | | | |
| Other Non-Ferrous Metal | 0.3% | 0.1% | 2,664 | Special Waste | 7.0% | | 63,801 |
| Remainder/Composite Metal | 4.4% | 1.2% | 40,499 | Ash | 0.1% | 0.1% | 822 |
| | | | | Sewage Solids | 0.0% | 0.0% | 0 |
| Plastic | 5.7% | | 51,679 | Industrial Sludge | 0.0% | 0.0% | 0 |
| HDPE Containers | 0.4% | 0.1% | 4,086 | Treated Medical Waste | 0.5% | 0.5% | 4,846 |
| PETE Containers | 0.1% | 0.0% | 1,233 | Bulky Items | 5.9% | 1.9% | 53,366 |
| Miscellaneous Plastic Containers | 0.1% | 0.0% | 1,147 | Tires | 0.4% | 0.3% | 3,992 |
| Film Plastic | 1.5% | 0.5% | 13,276 | Remainder/Composite Special Waste | 0.1% | 0.1% | 775 |
| Durable Plastic Items | 2.6% | 0.6% | 23,325 | | | | |
| Remainder/Composite Plastic | 0.9% | 0.3% | 8,611 | Mixed Residue | 0.3% | 0.1% | 2,473 |
| | | | | | | | |
| Sample count: 85 | | | | Totals | 100.0% | | 911,770 |

Confidence intervals calculated at the 90% confidence level. Percentages for materials may not total 100% due to rounding.

1999 STATEWIDE STUDY SELF HAUL DATA

1. The following charts and graph were created from data obtained during the 1999 Statewide Waste Disposal Characterization

Study conducted by the Board. The data is the result of 3,648 gate surveys conducted at 25 randomly selected sites around the state.

2. Self haul waste includes both commercial and residential wastes that are hauled by an individual or business other than a professional waste hauler whose primary business is not hauling waste (e.g. an individual, a construction company, a landscaper, etc.). For purposes of this study, commercial self haul loads were those hauled by a commercial enterprise (e.g. contractor, landscaper, etc.) even if the source of the waste was a residential dwelling. Residential self haul loads were those loads transported by a resident from their home to the disposal site.

3. The first sheet, Self Haul by Region, displays the self haul data obtained at each site, sorted by the five regions defined in the 1999 study.

4. The second sheet, Self Haul by %, displays the same data, but is sorted by the percent of total disposal that is self haul.

5. The third sheet, Graph by Region, depicts both statewide and regional self haul as a percent of total disposal.

6. The fourth and final sheet, Add'l Data, displays the data used to construct the graph, and identifies which counties were assigned to each of the five study regions.

7. The entire study may be found at the Board's website at <http://www.ciwmb.ca.gov/Publications/default.asp?pubid=824>.

SELF HAUL BY REGION

| Site | County | Statewide Study Region | Survey Date | Survey Total (tons) | S/H Total (tons) | % Total S/H | Res S/H (tons) | % Res S/H | Com S/H (tons) | % Com S/H |
|---|----------------|------------------------|-------------|---------------------|------------------|-------------|----------------|-----------|----------------|-----------|
| Potrero Hills / Suisun City | Solano | Bay Area | 8/25/99 | 413.99 | 70.02 | 16.91 | 8.22 | 1.99 | 61.80 | 14.93 |
| Davis Street / San Leandro | Alameda | Bay Area | 8/17/99 | 1314.15 | 254.37 | 19.36 | 72.49 | 5.52 | 181.88 | 13.84 |
| South Bayside Transfer Station | San Mateo | Bay Area | 3/23/99 | 616.85 | 125.20 | 20.30 | 61.93 | 10.04 | 63.27 | 10.26 |
| Berkeley Transfer Station | Alameda | Bay Area | 9/15/99 | 233.70 | 56.34 | 24.11 | 13.38 | 5.73 | 42.96 | 18.38 |
| Ox Mountain Landfill | San Mateo | Bay Area | 3/24/99 | 338.94 | 158.40 | 46.73 | 19.81 | 5.84 | 138.59 | 40.89 |
| American Avenue / Fresno | Fresno | Central Valley | 8/27/99 | 1207.09 | 42.77 | 3.54 | 5.99 | 0.50 | 36.78 | 3.05 |
| Billy Wright / Los Banos | Merced | Central Valley | 8/24/99 | 149.28 | 12.60 | 8.44 | 2.55 | 1.70 | 10.05 | 6.73 |
| Fairmead Solid Waste Disposal Site | Madera | Central Valley | 3/22/99 | 312.99 | 31.68 | 10.12 | 20.84 | 6.66 | 10.84 | 3.46 |
| Auburn Placer Disposal Transfer Station | Placer | Central Valley | 3/26/99 | 106.78 | 13.20 | 12.36 | 10.25 | 9.60 | 2.95 | 2.76 |
| Yolo County / Davis | Yolo | Central Valley | 8/18/99 | 481.63 | 70.52 | 14.64 | 8.19 | 1.70 | 62.33 | 12.94 |
| Johnson Canyon / Gonzales | Monterey | Coastal | 8/30/99 | 132.16 | 5.05 | 3.82 | 0.65 | 0.49 | 4.40 | 3.33 |
| Central Landfill | Sonoma | Coastal | 4/6/99 | 714.22 | 103.23 | 14.45 | 13.96 | 1.95 | 80.85 | 11.32 |
| Monterey Regional Waste Management District/Marina Landfill | Monterey | Coastal | 3/25/99 | 428.15 | 88.30 | 20.62 | 11.48 | 2.68 | 76.82 | 17.94 |
| John Smith / Hollister | San Benito | Coastal | 8/26/99 | 262.74 | 55.93 | 21.29 | 17.03 | 6.48 | 38.80 | 14.77 |
| Buena Vista / Watsonville | Santa Cruz | Coastal | 8/16/99 | 270.79 | 93.92 | 34.68 | 14.36 | 5.30 | 79.56 | 29.38 |
| West Central Landfill | Shasta | Mountain | 3/30/99 | 156.23 | 6.19 | 3.96 | 4.90 | 3.14 | 1.29 | 0.83 |
| South Tahoe | El Dorado | Mountain | 8/19/99 | 58.39 | 6.78 | 11.61 | 1.67 | 2.86 | 5.11 | 8.75 |
| City of Redding Transfer Station/MRF | Shasta | Mountain | 3/29/99 | 252.40 | 36.43 | 14.43 | 12.63 | 5.00 | 23.80 | 9.43 |
| McCourtney Road Large Volume T/S | Nevada | Mountain | 4/7/99 | 90.05 | 34.04 | 37.80 | 20.28 | 22.52 | 13.76 | 15.28 |
| Western Amador / Ione | Amador | Mountain | 8/23/99 | 85.30 | 33.57 | 39.35 | 3.05 | 3.58 | 30.52 | 35.78 |
| Universal / El Cajon | San Diego | Southern | 7/24/99 | 44.42 | 2.93 | 6.59 | 1.38 | 3.10 | 1.55 | 3.49 |
| Victorville Refuse Disposal Site | San Bernardino | Southern | 3/2/99 | 356.50 | 35.81 | 10.04 | 25.77 | 7.23 | 10.04 | 2.82 |
| Bradley Landfill West and West Ext. | Los Angeles | Southern | 2/23/99 | 2929.59 | 318.10 | 10.86 | 60.49 | 2.06 | 257.62 | 8.79 |
| Sunset Environmental | Orange | Southern | 3/1/99 | 1073.51 | 163.10 | 15.19 | 2.39 | 0.22 | 160.71 | 14.97 |
| Falcon Refuse / Wilmington | Los Angeles | Southern | 7/27/99 | 543.76 | 190.14 | 34.97 | 10.42 | 1.92 | 179.72 | 33.05 |

SELF HAUL BY PERCENTAGE

| Site | County | Statewide Study Region | Survey Date | Survey Total (tons) | S/H Total (tons) | % Total S/H | Res S/H (tons) | % Res S/H | Com S/H (tons) | % Com S/H |
|---|----------------|------------------------|-------------|---------------------|------------------|-------------|----------------|-----------|----------------|-----------|
| American Avenue / Fresno | Fresno | Central Valley | 8/27/99 | 1207.09 | 42.77 | 3.54 | 5.99 | 0.50 | 36.78 | 3.05 |
| Johnson Canyon / Gonzales | Monterey | Coastal | 8/30/99 | 132.16 | 5.05 | 3.82 | 0.65 | 0.49 | 4.40 | 3.33 |
| West Central Landfill | Shasta | Mountain | 3/30/99 | 156.23 | 6.19 | 3.96 | 4.90 | 3.14 | 1.29 | 0.83 |
| Universal / El Cajon | San Diego | Southern | 7/24/99 | 44.42 | 2.93 | 6.59 | 1.38 | 3.10 | 1.55 | 3.49 |
| Billy Wright / Los Banos | Merced | Central Valley | 8/24/99 | 149.28 | 12.60 | 8.44 | 2.55 | 1.70 | 10.05 | 6.73 |
| Victorville Refuse Disposal Site | San Bernardino | Southern | 3/2/99 | 356.50 | 35.81 | 10.04 | 25.77 | 7.23 | 10.04 | 2.82 |
| Fairmead Solid Waste Disposal Site | Madera | Central Valley | 3/22/99 | 312.99 | 31.68 | 10.12 | 20.84 | 6.66 | 10.84 | 3.46 |
| Bradley Landfill West and West Ext. | Los Angeles | Southern | 2/23/99 | 2929.59 | 318.10 | 10.86 | 60.49 | 2.06 | 257.62 | 8.79 |
| South Tahoe | El Dorado | Mountain | 8/19/99 | 58.39 | 6.78 | 11.61 | 1.67 | 2.86 | 5.11 | 8.75 |
| Auburn Placer Disposal Transfer Station | Placer | Central Valley | 3/26/99 | 106.78 | 13.20 | 12.36 | 10.25 | 9.60 | 2.95 | 2.76 |
| City of Redding Transfer Station/MRF | Shasta | Mountain | 3/29/99 | 252.40 | 36.43 | 14.43 | 12.63 | 5.00 | 23.80 | 9.43 |
| Central Landfill | Sonoma | Coastal | 4/6/99 | 714.22 | 103.23 | 14.45 | 13.96 | 1.95 | 80.85 | 11.32 |
| Yolo County / Davis | Yolo | Central Valley | 8/18/99 | 481.63 | 70.52 | 14.64 | 8.19 | 1.70 | 62.33 | 12.94 |
| Sunset Environmental | Orange | Southern | 3/1/99 | 1073.51 | 163.10 | 15.19 | 2.39 | 0.22 | 160.71 | 14.97 |
| Potrero Hills / Suisun City | Solano | Bay Area | 8/25/99 | 413.99 | 70.02 | 16.91 | 8.22 | 1.99 | 61.80 | 14.93 |
| Davis Street / San Leandro | Alameda | Bay Area | 8/17/99 | 1314.15 | 254.37 | 19.36 | 72.49 | 5.52 | 181.88 | 13.84 |
| South Bayside Transfer Station | San Mateo | Bay Area | 3/23/99 | 616.85 | 125.20 | 20.30 | 61.93 | 10.04 | 63.27 | 10.26 |
| Monterey Regional Waste Management District/Marina Landfill | Monterey | Coastal | 3/25/99 | 428.15 | 88.30 | 20.62 | 11.48 | 2.68 | 76.82 | 17.94 |
| John Smith / Hollister | San Benito | Coastal | 8/26/99 | 262.74 | 55.93 | 21.29 | 17.03 | 6.48 | 38.80 | 14.77 |
| Berkeley Transfer Station | Alameda | Bay Area | 9/15/99 | 233.70 | 56.34 | 24.11 | 13.38 | 5.73 | 42.96 | 18.38 |
| Buena Vista / Watsonville | Santa Cruz | Coastal | 8/16/99 | 270.79 | 93.92 | 34.68 | 14.36 | 5.30 | 79.56 | 29.38 |
| Falcon Refuse / Wilmington | Los Angeles | Southern | 7/27/99 | 543.76 | 190.14 | 34.97 | 10.42 | 1.92 | 179.72 | 33.05 |
| McCourtney Road Large Volume T/S | Nevada | Mountain | 4/7/99 | 90.05 | 34.04 | 37.80 | 20.28 | 22.52 | 13.76 | 15.28 |
| Western Amador / Ione | Amador | Mountain | 8/23/99 | 85.30 | 33.57 | 39.35 | 3.05 | 3.58 | 30.52 | 35.78 |
| Ox Mountain Landfill | San Mateo | Bay Area | 3/24/99 | 338.94 | 158.40 | 46.73 | 19.81 | 5.84 | 138.59 | 40.89 |
| | | | | | | | | | | |

Regional Estimates for Self Haul (% of Total)

| | <u>Statewide</u> | <u>Bay Area</u> | <u>Central Valley</u> | <u>Coastal</u> | <u>Mountain</u> | <u>Southern</u> |
|-------------|------------------|-----------------|-----------------------|----------------|-----------------|-----------------|
| Commercial | 10.5% | 16.4% | 4.2% | 14.9% | 9.1% | 9.7% |
| Residential | 2.6% | 5.9% | 0.9% | 2.5% | 5.8% | 2.0% |
| Total | 13.1% | 22.3% | 5.1% | 17.4% | 14.9% | 11.7% |

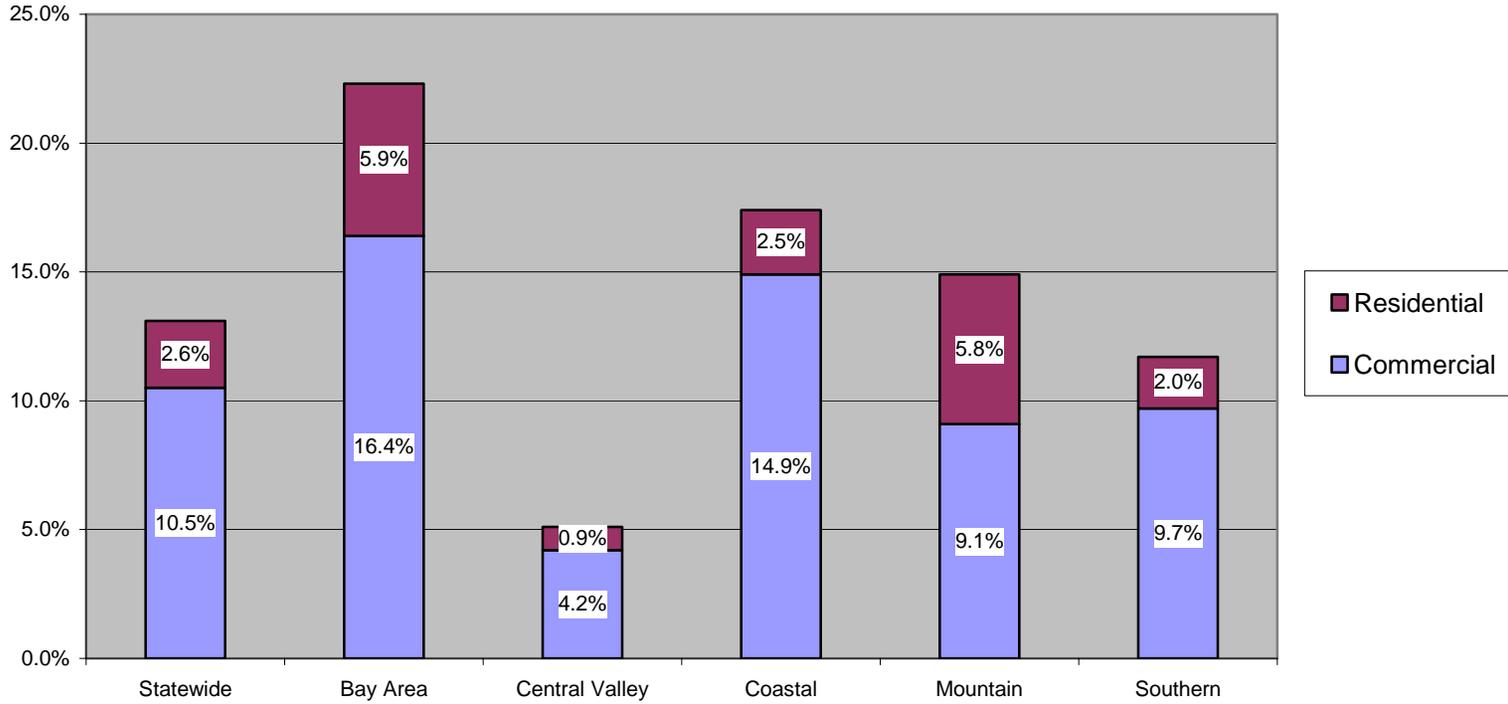
Note:

Percentages determined from data obtained from 3,648 vehicle surveys conducted during the 1999 Statewide Waste Disposal Characterization Study.

Counties in Each Region

| Bay Area | Central Valley | Coastal | Mountain | Southern |
|-----------------|-----------------------|----------------|-----------------|-----------------|
| Alameda | Butte | Del Norte | Alpine | Imperial |
| Contra Costa | Colusa | Humboldt | Amador | Kern |
| Marin | Fresno | Mendocino | Calaveras | Los Angeles |
| Napa | Glenn | Monterey | El Dorado | Orange |
| San Francisco | Kings | San Benito | Inyo | Riverside |
| San Mateo | Lake | Santa Cruz | Lassen | San Bernardino |
| Santa Clara | Madera | Sonoma | Mariposa | San Diego |
| Solano | Merced | | Modoc | San Luis Obispo |
| | Placer | | Mono | Santa Barbara |
| | Sacramento | | Nevada | Ventura |
| | San Joaquin | | Plumas | |
| | Stanislaus | | Shasta | |
| | Sutter | | Sierra | |
| | Tehama | | Siskiyou | |
| | Tulare | | Trinity | |
| | Yolo | | Tuolumne | |
| | Yuba | | | |

Self Haul As Percent of Total Dsposal



Note: Based on data from 3,648 surveys conducted during the 1999 Statewide Study.

Meeting 2

ALLOCATION ISSUES FOR DISCUSSION DISPOSAL REPORTING WORKING GROUP

April 3, 2001

ALLOCATION ISSUE # 1

- Jurisdictions need more timely information to resolve allocation problems. Jurisdictions receive DRS information when Board receives it. A jurisdiction may not agree with the reported figures but it takes almost 4 months to get the information and it is hard to reconcile after that much time.

Potential Solutions:

Solutions available within the existing DRS System

1. Local jurisdictions establish ordinances and penalties with requirements for accuracy, type of information and timeliness of information.

Solutions requiring legislative or regulatory changes to present DRS system

2. Establish statewide standards for information collected, and penalties for misinformation and untimely information
3. Change reporting due dates (Title 14 CCR sec 18807) decreasing lag time.
4. Change Annual Report due date to November of following year.

ALLOCATION ISSUE # 2

- Mixed loads may not be allocated correctly. Computer programs may not have the capacity to collect information on more than one city or more than a few cities for one truck load.
- Cities and/or counties having similar names may cause misallocation.

- Some landfills charge different fees for different jurisdictions or only accept waste from certain jurisdictions. This may create an economic incentive to misreport origin.
- Some haulers or facilities may have contracts with some jurisdictions and not others to divert a certain percentage of waste. This may cause incentive to misreport origin.

Potential Solutions:

Solutions available within the existing DRS System

1. Voluntarily Regionalize jurisdictions by watershed.
2. Use dispatcher information.
3. Use an agreed upon percent (county/cities) to be used to allocate jurisdictionally mixed waste loads.
4. State provide standardized software.

Solutions requiring legislative or regulatory changes to present DRS system

5. Establish a statewide tipping fee.
6. State provide grants to upgrade software.
7. Require disposal origin reported by county not jurisdiction.

ALLOCATION ISSUE # 3

- Major waste generating events that occur during the survey week skew disposal numbers.

Potential Solutions:

Solutions available within the existing DRS System

1. Implement Board-approved alternative reporting system to survey in a different week
2. Require more frequent surveys/survey and weigh every load every day.

Solutions requiring legislative or regulatory changes to present DRS system

ALLOCATION ISSUE # 4

- There are no standards or guidelines to collect data.

Potential Solutions:

Solutions available within the existing DRS System

1. Establish local fee/business license program for waste haulers. Conduct local audits.
2. Local jurisdictions establish ordinances and penalties with requirements for accuracy, type of information and timeliness of information.
3. Training by state/local agency.
4. County/Local agency require signs posted about origin collection at facilities

Solutions requiring legislative or regulatory changes to present DRS system

5. Establish statewide standards for information collected.
6. Establish penalties for misinformation and untimely information.

ALLOCATION ISSUE # 5

- Sometimes it is difficult to get information from private landfills. It is costly and time consuming to verify facility information. There are no penalties for misinformation or untimely information.

Potential Solutions:

Solutions available within the existing DRS System

1. Make landfill cooperation a requirement as part of landfill business license.
Solutions requiring legislative or regulatory changes to present DRS system
2. State provide enforcement authority.

DRS SURVEY WEEK FACILITY VISITS

2000/2001

Investigation Results

Unannounced, random site visits at landfills and transfer stations are being conducted throughout the state. The purpose of these visits is to determine whether waste origin information is being collected as required by Title 14, California Code of Regulations Section 18805-18810, and to observe how the surveys are being conducted. The following is a summary of these visits for 2000.

1st Quarter Survey Week 2000

| | Total | Asked Origin | Did Not Ask |
|---------------------------------|-------|--------------|-------------|
| Total Facilities Visited | 3 | 2 | 1 |
| Total Landfills Visited | 2 | 1 | 1 |
| Total Transfer Stations Visited | 1 | 1 | 0 |

2nd Quarter Survey Week 2000

| | Total | Asked Origin | Did Not Ask | % Complying |
|---------------------------------|-------|--------------|-------------|-------------|
| Total Facilities Visited | 40 | 23 | 17 | 57.5% |
| Total Landfills Visited | 35 | 21 | 14 | 60.0% |
| Total Transfer Stations Visited | 5 | 2 | 3 | 40.0% |

3rd Quarter Survey Week 2000

| | Total | Asked Origin | Did Not Ask | % Complying |
|---------------------------------|-------|--------------|-------------|-------------|
| Total Facilities Visited | 89 | 65 | 24 | 73.0% |
| Total Landfills Visited | 47 | 38 | 9 | 80.9% |
| Total Transfer Stations Visited | 42 | 26 | 16 | 61.9% |

4th Quarter Survey Week 2000

| | Total | Asked Origin | Did Not Ask | % Complying |
|--|-------|--------------|-------------|-------------|
|--|-------|--------------|-------------|-------------|

| | | | | |
|---------------------------------|----|----|---|-------|
| Total Facilities Visited | 20 | 14 | 6 | 70.0% |
| Total Landfills Visited | 9 | 7 | 2 | 77.8% |
| Total Transfer Stations Visited | 11 | 7 | 4 | 63.6% |

Daily Survey Facilities Visited Outside a Survey Week 2000

| | Total | Asked Origin | Did Not Ask | % Complying |
|---------------------------------|-------|--------------|-------------|-------------|
| Total Facilities Visited | 17 | 8 | 9 | 47.1% |
| Total Landfills Visited | 7 | 4 | 3 | 57.1% |
| Total Transfer Stations Visited | 10 | 4 | 6 | 40.0% |
| Sites Not Complying & Revisited | 10 | 7 | 3 | 70.0% |

1st Quarter Survey Week 2001

| | Total | Asked Origin | Did Not Ask | % Complying |
|---------------------------------|-------|--------------|-------------|-------------|
| Total Facilities Visited | 32 | 23 | 9 | 71.9% |
| Total Landfills Visited | 14 | 12 | 2 | 85.7% |
| Total Transfer Stations Visited | 18 | 11 | 7 | 61.1% |

Sites Revisited

| | Total | Asked Origin | Did Not Ask | % Complying |
|---|-----------|--------------|-------------|--------------|
| Sites Not Complying & Revisited in 3rd Quarter 2000 | 6 | 4 | 2 | 66.7% |
| Sites Not Complying & Revisited in 4th Quarter 2000 | 13 | 8 | 5 | 61.5% |
| Total Sites Not Complying & Revisited 2000 | 19 | 12 | 7 | 63.2% |
| Sites Not Complying & Revisited in 1st Quarter 2001 | 9 | 7 | 2 | 77.8% |

| | Total | Asked Origin | Did Not Ask | % Complying |
|--|------------|--------------|-------------|--------------|
| Total Facilities Visited to Date | 201 | 135 | 66 | 67.2% |
| Total Landfills Visited to Date | 114 | 83 | 31 | 72.8% |
| Total Transfer Stations Visited to Date | 87 | 51 | 36 | 58.6% |

DRS Survey Week Facility Results 2000

Private vs. Public Facilities

1st Quarter Survey Week 2000

| | Total | Asked Origin | Did Not Ask |
|---------------------------------|-------|--------------|-------------|
| Total Private Landfills | 1 | 0 | 1 |
| Total Public Landfills | 1 | 1 | 0 |
| Total Private Transfer Stations | 0 | 0 | 0 |
| Total Public Transfer Stations | 1 | 1 | 0 |
| Total Facilities Visited | 3 | 2 | 1 |

2nd Quarter Survey Week 2000

| | Total | Asked Origin | Did Not Ask |
|---------------------------------|-------|--------------|-------------|
| Total Private Landfills | 12 | 8 | 4 |
| Total Public Landfills | 23 | 13 | 10 |
| Total Private Transfer Stations | 3 | 0 | 3 |
| Total Public Transfer Stations | 2 | 2 | 0 |
| Total Facilities Visited | 40 | 23 | 17 |

3rd Quarter Survey Week 2000

| | Total | Asked Origin | Did Not Ask |
|---------------------------------|-------|--------------|-------------|
| Total Private Landfills | 24 | 19 | 5 |
| Total Public Landfills | 23 | 19 | 4 |
| Total Private Transfer Stations | 36 | 21 | 15 |
| Total Public Transfer Stations | 6 | 5 | 1 |

| | | | |
|--------------------------|----|----|----|
| Total Facilities Visited | 89 | 64 | 25 |
|--------------------------|----|----|----|

4th Quarter Survey Week 2000

| | Total | Asked Origin | Did Not Ask |
|---------------------------------|-------|--------------|-------------|
| Total Private Landfills | 7 | 5 | 2 |
| Total Public Landfills | 2 | 2 | 0 |
| Total Private Transfer Stations | 9 | 6 | 3 |
| Total Public Transfer Stations | 2 | 1 | 1 |
| Total Facilities Visited | 20 | 14 | 6 |

Daily Survey Facilities Visited Outside a Survey Week 2000

| | Total | Asked Origin | Did Not Ask |
|---------------------------------|-------|--------------|-------------|
| Total Private Landfills | 4 | 1 | 3 |
| Total Public Landfills | 3 | 3 | 0 |
| Total Private Transfer Stations | 8 | 2 | 6 |
| Total Public Transfer Stations | 2 | 2 | 0 |
| Total Facilities Visited | 17 | 8 | 9 |

1st Quarter Survey Week 2001

| | Total | Asked Origin | Did Not Ask |
|---------------------------------|-------|--------------|-------------|
| Total Private Landfills | 9 | 8 | 1 |
| Total Public Landfills | 5 | 4 | 1 |
| Total Private Transfer Stations | 12 | 7 | 5 |
| Total Public Transfer Stations | 6 | 4 | 2 |
| Total Facilities Visited | 32 | 23 | 9 |

| | Total | Asked Origin | Did Not Ask | % Complying |
|--|-----------|--------------|-------------|--------------|
| 2000-2001 Total Private Landfills Visited | 57 | 41 | 16 | 71.9% |

| | | | | |
|--|------------|------------|-----------|--------------|
| Total Public Landfills Visited | 57 | 42 | 15 | 73.7% |
| Total Private Transfer Stations Visited | 68 | 36 | 32 | 52.9% |
| Total Public Transfer Stations Visited | 19 | 15 | 4 | 78.9% |
| Total Private Facilities | 125 | 77 | 48 | 61.6% |
| Total Public Facilities | 76 | 57 | 19 | 75.0% |
| Total Facilities Visited | 201 | 134 | 67 | 66.7% |

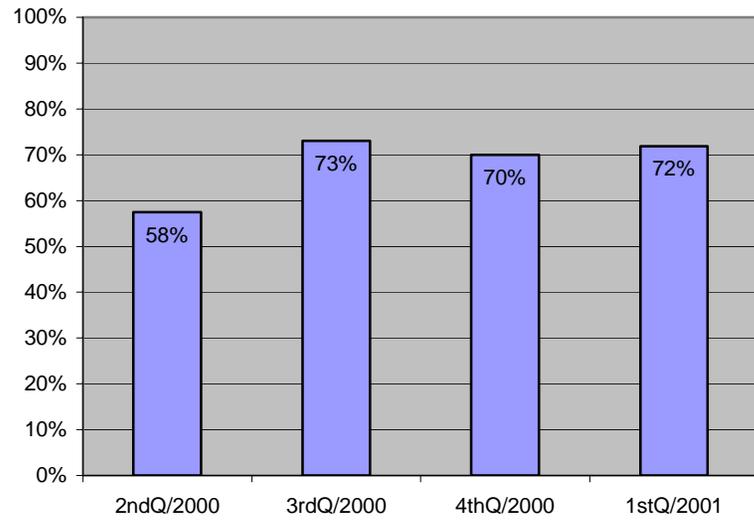
DRS Survey Week Facility Visits 2000/2001

Investigation Results

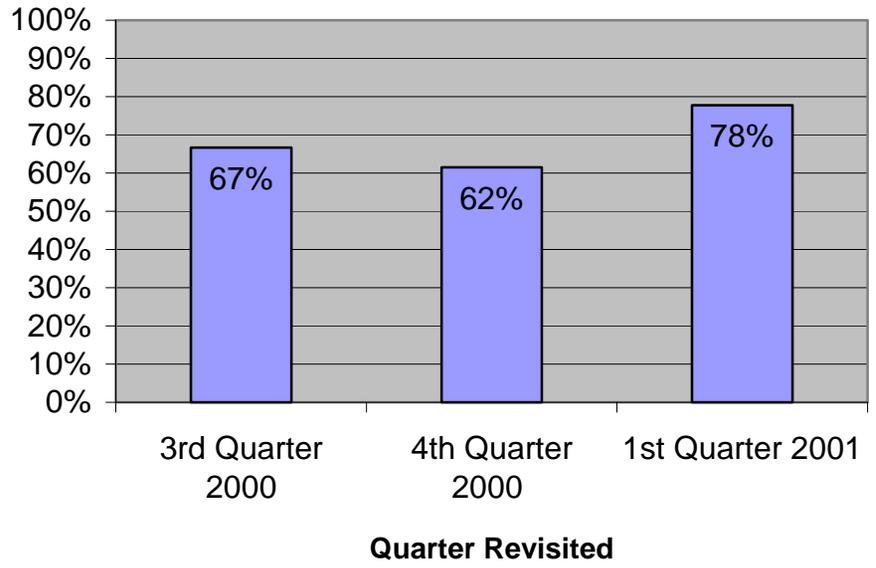
Unannounced, random site visits at landfills and transfer stations are being conducted throughout the state. The purpose of these visits is to determine whether waste origin information is being collected as required by Title 14, California Code of Regulations Section 18805-18810, and to observe how the surveys are being conducted. The following is a summary of these visits for 2000.

| | | |
|-------|--|--------------|
| | 2ndQ/2000 | 57.5% |
| | 3rdQ/2000 | 73.0% |
| | 4thQ/2000 | 70.0% |
| | 1stQ/2001 | 71.9% |
| | Sites Revisited | |
| | 3rd Quarter 2000 | 66.7% |
| | 4th Quarter 2000 | 61.5% |
| | 1st Quarter 2001 | 77.8% |
| <hr/> | | |
| | Total Facilities Visited to Date | 67.2% |
| | Total Landfills Visited to Date | 72.8% |
| | Total Transfer Stations Visited to Date | 58.6% |

Percentage of Facilities Visited that were in Compliance



**Percentage of Facilities Previously not Complying
& Revisited and Found In Compliance**



DRS SURVEY WEEK FACILITY RESULTS 2000

Private vs. Public Facilities

1st Quarter Survey Week 2000

Total Private Landfills

Total Public Landfills

Total Private Transfer Stations

Total Public Transfer Stations

Total Facilities Visited

2nd Quarter Survey Week 2000

Total Private Landfills

Total Public Landfills

Total Private Transfer Stations

Total Public Transfer Stations

Total Facilities Visited

3rd Quarter Survey Week 2000

Total Private Landfills

Total Public Landfills

Total Private Transfer Stations

Total Public Transfer Stations

Total Facilities Visited

4th Quarter Survey Week 2000

Total Private Landfills

Total Public Landfills

Total Private Transfer Stations

Total Public Transfer Stations

Total Facilities Visited

Daily Survey Facilities Visited Outside a Survey Week 2000

Total Private Landfills

Total Public Landfills

Total Private Transfer Stations

Total Public Transfer Stations

Total Facilities Visited

1st Quarter Survey Week 2001

Total Private Landfills

Total Public Landfills

Total Private Transfer Stations

Total Public Transfer Stations

Total Facilities Visited

2000-2001 % Complying

| | |
|--|--------------|
| Total Private Landfills Visited | 71.9% |
| Total Public Landfills Visited | 73.7% |
| Total Private Transfer Stations Visited | 52.9% |
| Total Public Transfer Stations Visited | 78.9% |
| Total Private Facilities | 61.6% |
| Total Public Facilities | 75.0% |
| Total Facilities Visited | 66.7% |

SURVEY FREQUENCY AND SCALE USE

| Survey Frequencies and Scale Use | | | | | | | | | |
|----------------------------------|-------------|-----------------|------------|-------------------------|------|-------------------------|----------------|-------|-----|
| | Scales Used | | | | | | | | |
| Survey Frequency | Both | Commercial Only | No Reponse | Depends on Size of Load | None | Both/SH not weighed out | Self-Haul Only | Total | Per |
| Daily | 43 | 12 | 8 | 3 | 5 | 2 | 1 | 74 | |
| Survey Week Only | 2 | 2 | | 3 | 1 | | | 8 | |
| Daily (Commercial Only) | | 7 | 1 | | | | | 8 | |
| Other | 1 | 1 | 1 | 2 | 1 | | | 6 | |
| Grand Total | 46 | 22 | 10 | 8 | 7 | 2 | 1 | 96 | |

74 (77%) of the landfills surveyed conduct daily surveys.
 48 of these weigh both commercial and self-haul loads.
 12 of these weigh commercial loads only.
 8 of these did not respond regarding scale use.
 5 of these do not use scales.

8 (8%) of the landfills surveyed conduct daily surveys for commercial or large loads only.
 7 of these only weigh commercial loads.
 1 of these did not respond regarding scale use.

Only 8 (8%) of the landfills surveyed conduct quarterly surveys.
 5 of these weigh both commercial and self-haul loads, although for some it depends on size of load for self-haul.
 2 of these weigh commercial loads only.
 1 of these does not have scales.

1 (1%) of the landfills surveyed responded that they allocate all waste to the county.

2 (3%) of the landfills surveyed responded that they do "periodic" or "as needed" surveys.

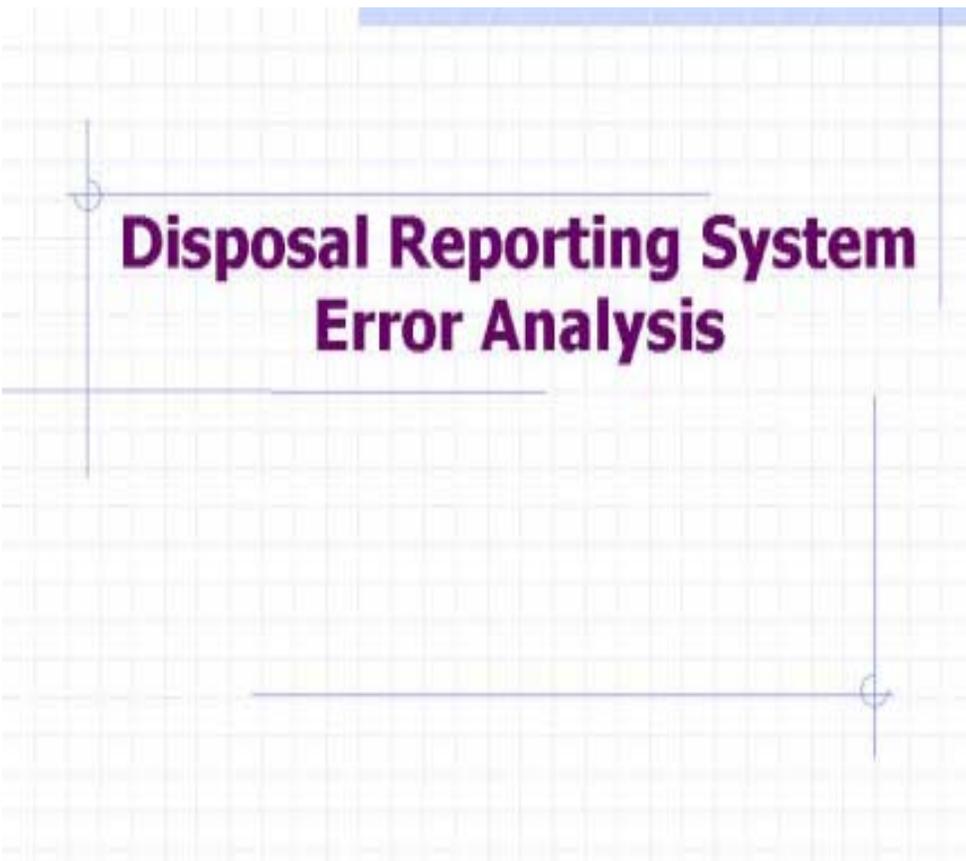
56 (58%) of the landfills surveyed weigh both commercial and self-haul loads, although for some it depends on size of load for self-haul.
 22 (23%) of the landfills surveyed weigh commercial loads only.
 10 (10%) of the landfills surveyed did not respond regarding scale use.
 7 (7%) of the landfills surveyed do not have scales.

Methods Used to Verify Waste Origin

| Verification of Origin | Number of Landfills | Percent of Total |
|-------------------------------|----------------------------|-------------------------|
| Not Verified | 62 | 65% |
| No Reponse | 20 | 21% |
| Driver's License/ID/Bill | 10 | 10% |
| Other | 3 | 3% |
| Prepurchase Ticket | 1 | 1% |
| Total | 96 | 100% |

These are preliminary results only. The phone survey will ultimately include 143 landfills out of 181 landfills statewide. Landfills excluded from the survey are those that allocate all accepted waste to the "host" jurisdiction.

DISPOSAL REPORTING SYSTEM ERROR ANALYSIS



Disposal Reporting System Error Analysis

Major Error Sources

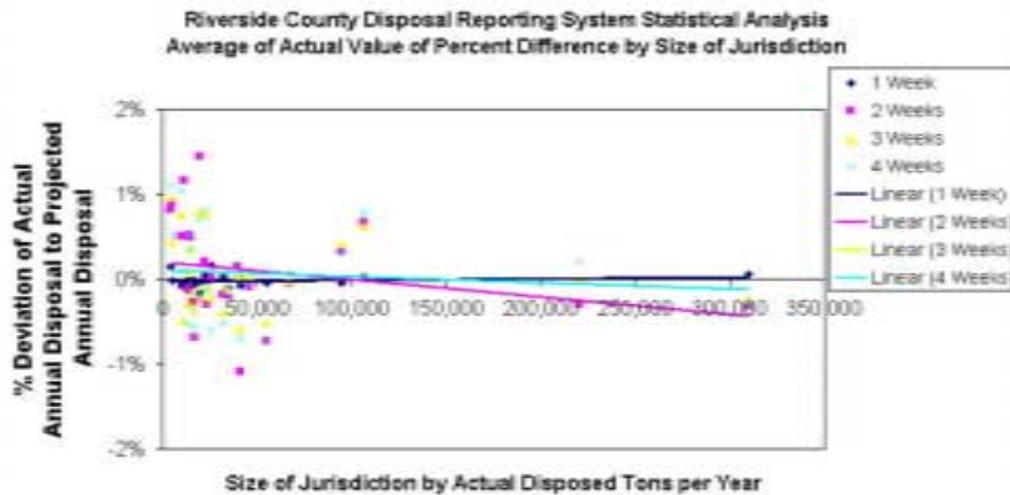
- ◆ Extrapolation
- ◆ Non-Regular Disposal
- ◆ Transactional/Translational

Data Source

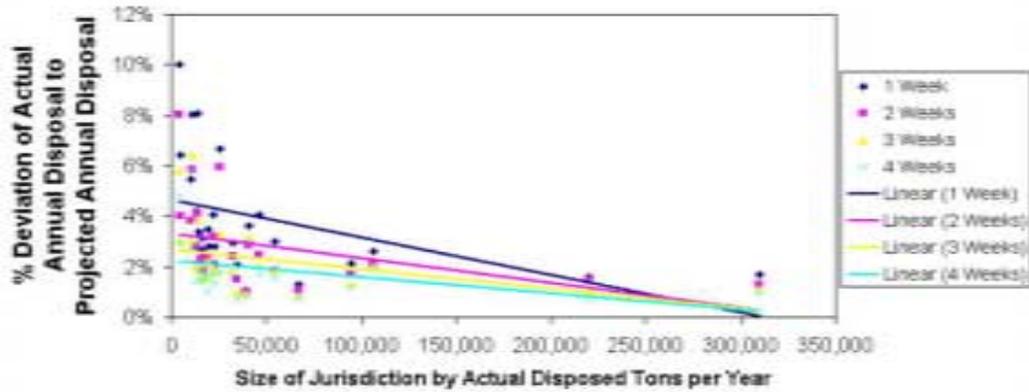
- ◆ 1997 UCLA/WMRP Study
- ◆ 1995 Disposal Data
- ◆ Actual Daily Disposal

Study Methodology

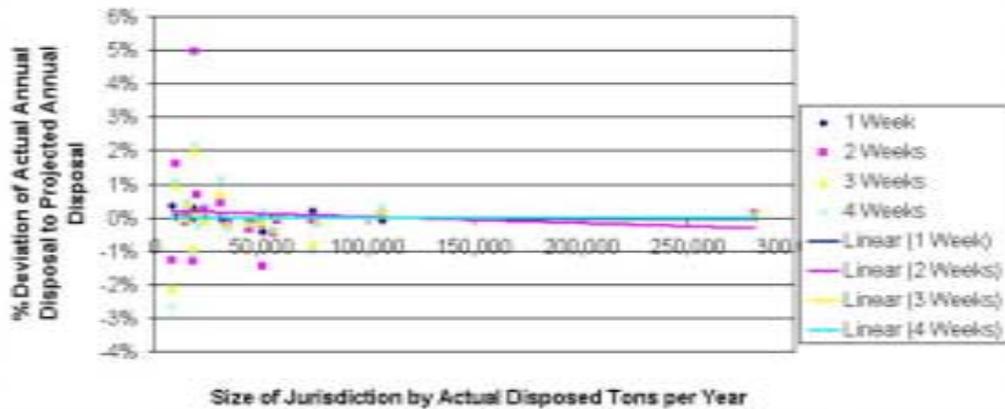
- ◆ Each week a survey week
- ◆ Average error for year
- ◆ Various survey lengths



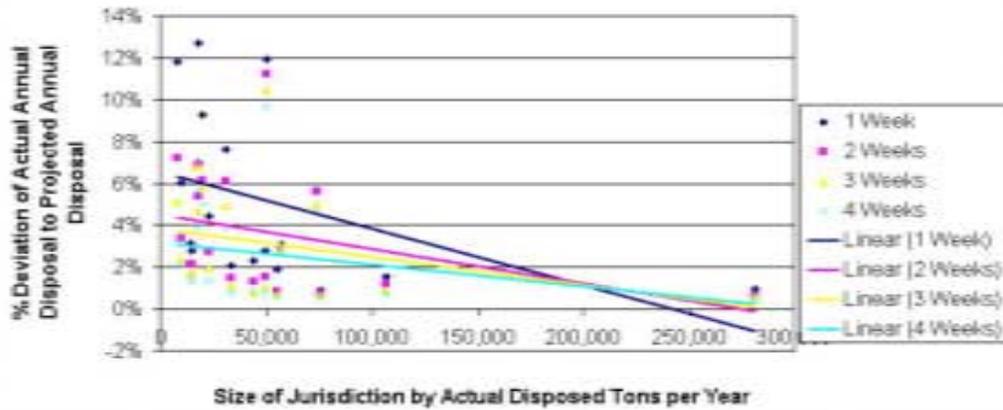
Riverside County Disposal Reporting System Statistical Analysis
Average of Absolute Value of Percent Difference by Size of Jurisdiction



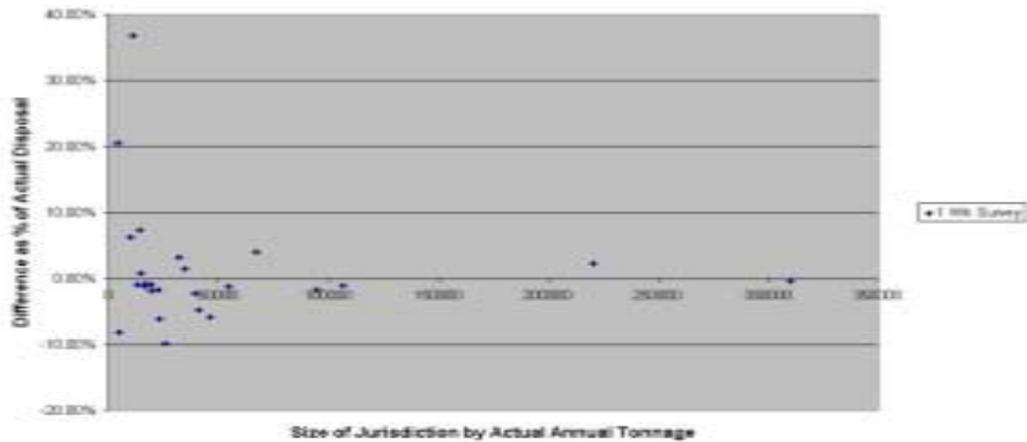
San Diego County Disposal Reporting System Statistical Analysis
Average of Actual Value of Percent Difference by Size of Jurisdiction



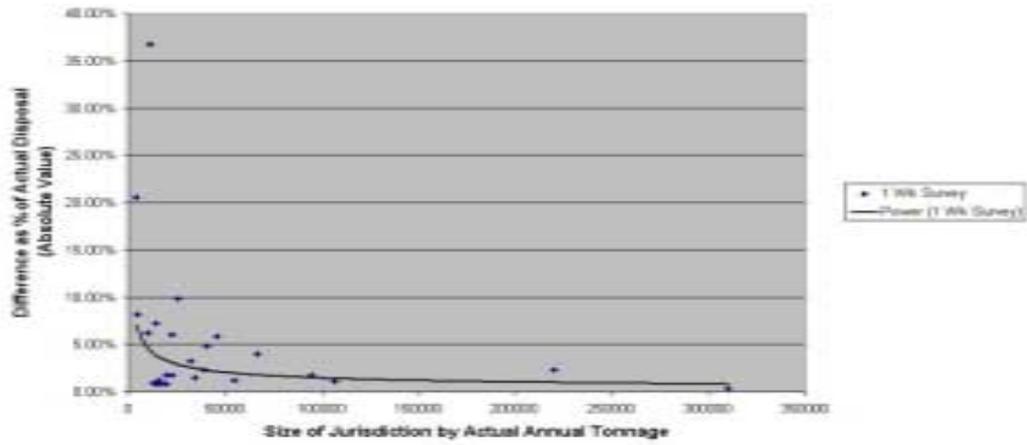
San Diego County Disposal Reporting System Statistical Analysis
Average of Absolute Value of Percent Difference by Size of Jurisdiction



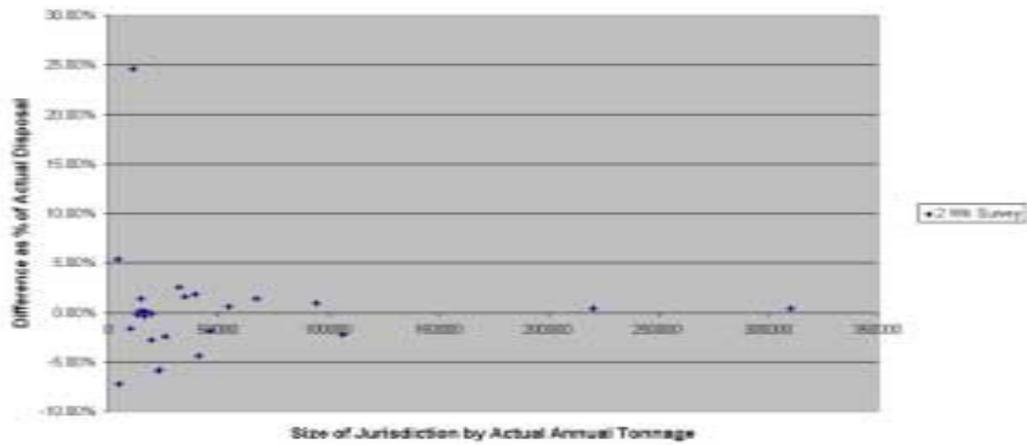
POTENTIAL ERROR - ACTUAL vs EXTRAPOLATED DISPOSAL
RIVERSIDE COUNTY - 1995



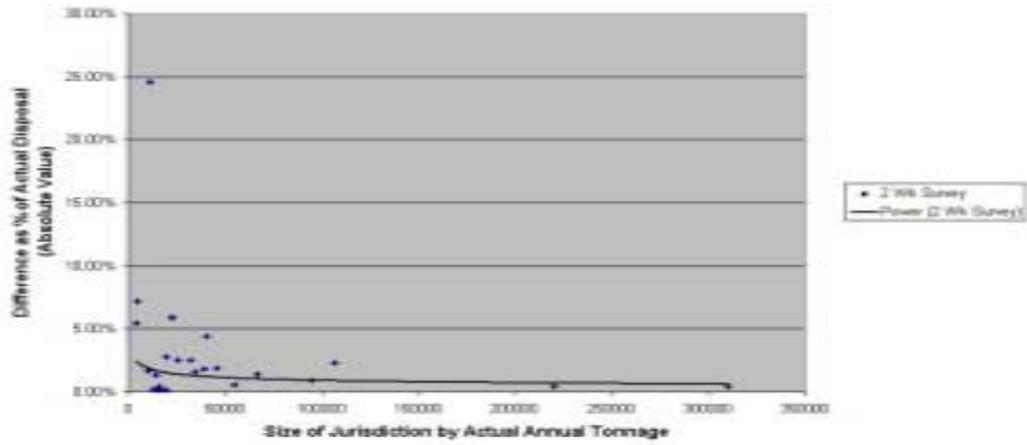
POTENTIAL ERROR - ACTUAL vs EXTRAPOLATED DISPOSAL
RIVERSIDE COUNTY - 1995



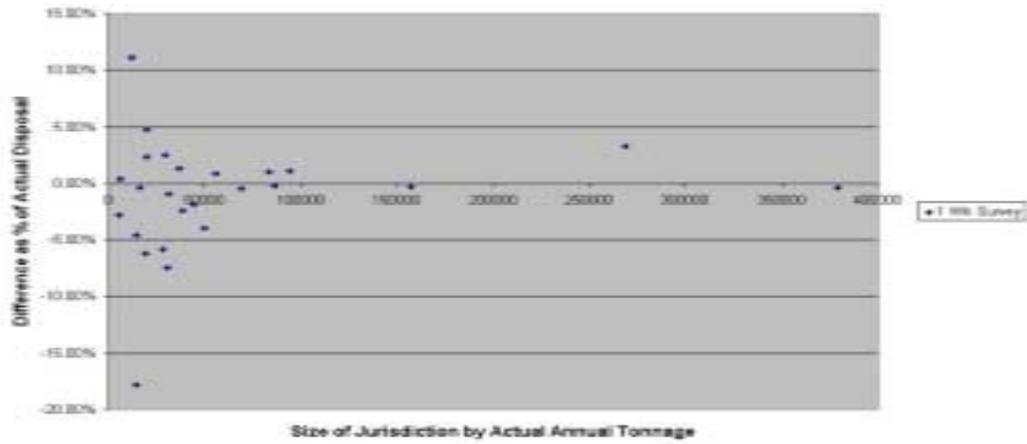
POTENTIAL ERROR - ACTUAL vs EXTRAPOLATED DISPOSAL
RIVERSIDE COUNTY - 1995



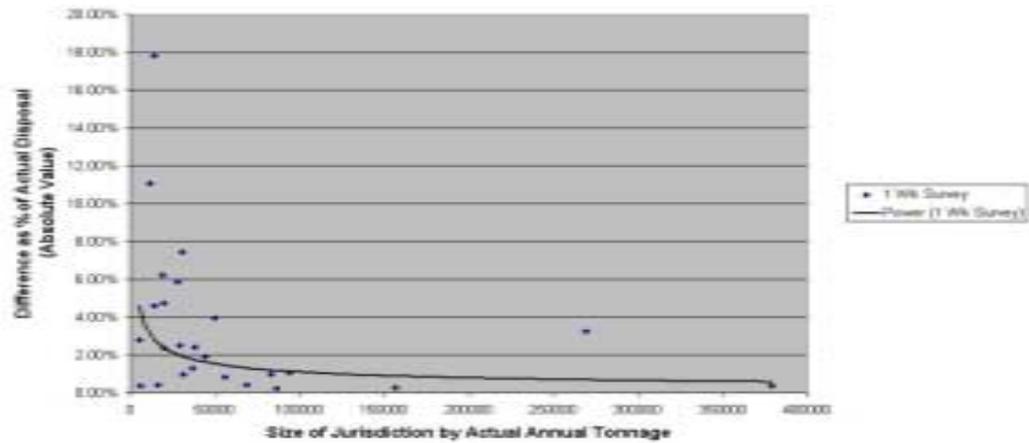
**POTENTIAL ERROR - ACTUAL vs EXTRAPOLATED DISPOSAL
RIVERSIDE COUNTY - 1995**



**POTENTIAL ERROR - ACTUAL vs EXTRAPOLATED DISPOSAL
RIVERSIDE COUNTY - 2000**



POTENTIAL ERROR - ACTUAL vs EXTRAPOLATED DISPOSAL
RIVERSIDE COUNTY - 2000



Conclusions . . .

- ◆ No trend to over/under estimate
- ◆ Bigger jurisdiction = better data
- ◆ More data = better precision

Conclusions . . . (cont'd)

- ◆ Error analysis requires daily data
- ◆ Can't quantify Transactional Error
- ◆ "Margin of Error" is elusive

Recommendations ?

DISPOSAL REPORTING SYSTEM OUTLIER ANALYSIS

Disposal Reporting System

An Analysis of Potential Outliers

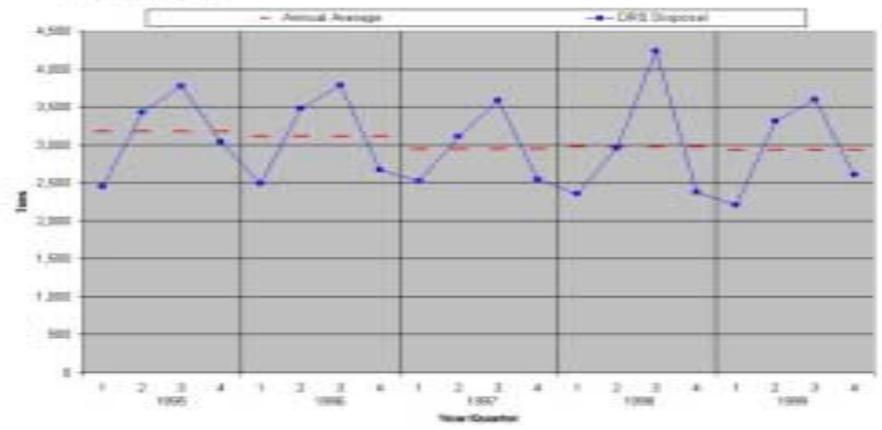
Why focus on outliers?

- ◆ Determine if quarterly DRS data show patterns, trends, etc.
- ◆ Identify potential anomalies, or outliers, in these patterns
- ◆ Determine which jurisdictions, or types of jurisdictions, may have potential accuracy issues

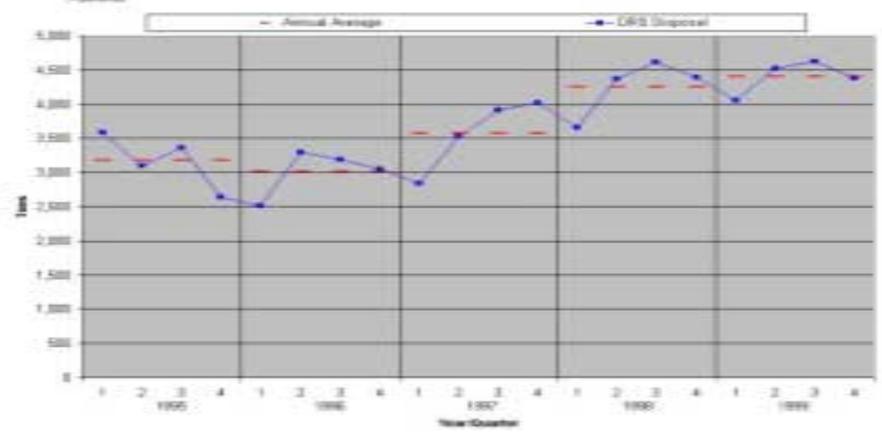
A look at the data

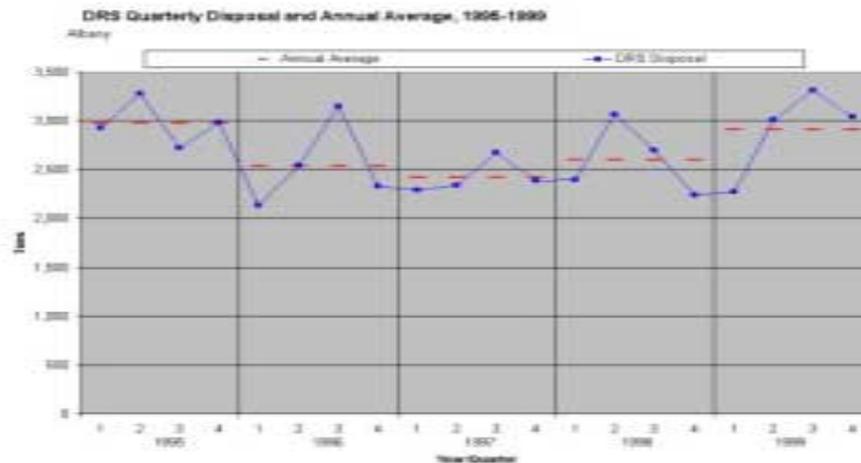
- ◆ DRS disposal is highly variable at the jurisdiction level
 - Some jurisdictions show strong patterns and trends
 - Some jurisdictions show weak patterns and trends, or none at all

DRS Quarterly Disposal and Annual Average, 1995-1999
 Mepps-Unauthorized



DRS Quarterly Disposal and Annual Average, 1995-1999
 Adams





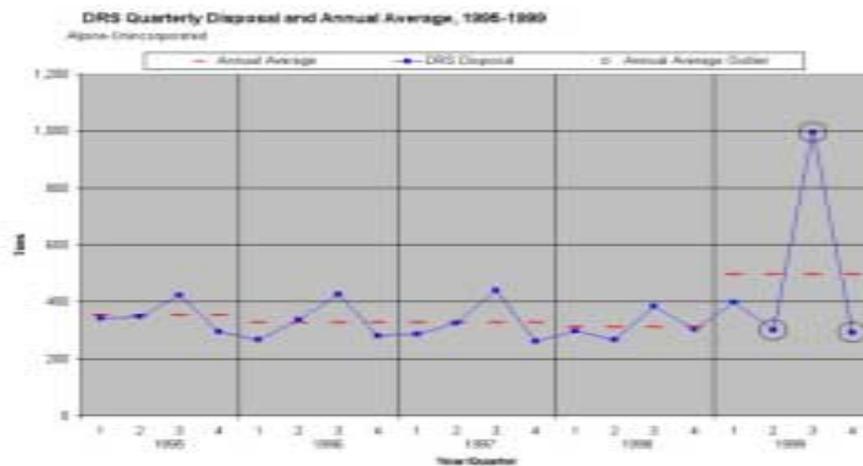
A look at the data

◆ Types of potential outliers

- **Annual Average**
 - Quarterly data is significantly different from annual average of all four quarters
- **Seasonal**
 - Quarterly data is significantly different from average of same quarters from all years
- **Quarterly Change**
 - Quarter-to-quarter change is greater than a specified threshold

A look at the data

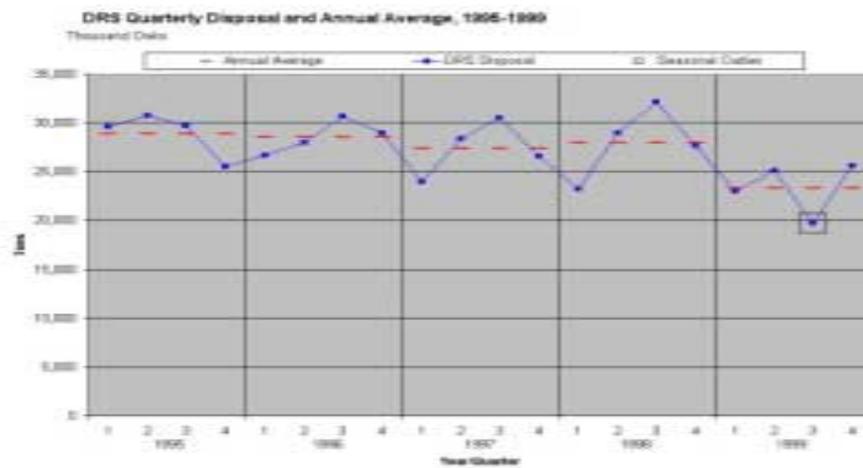
- ◆ Examples of potential outliers
 - Annual Average
 - Alpine-Unincorporated



A look at the data

◆ Examples of potential outliers

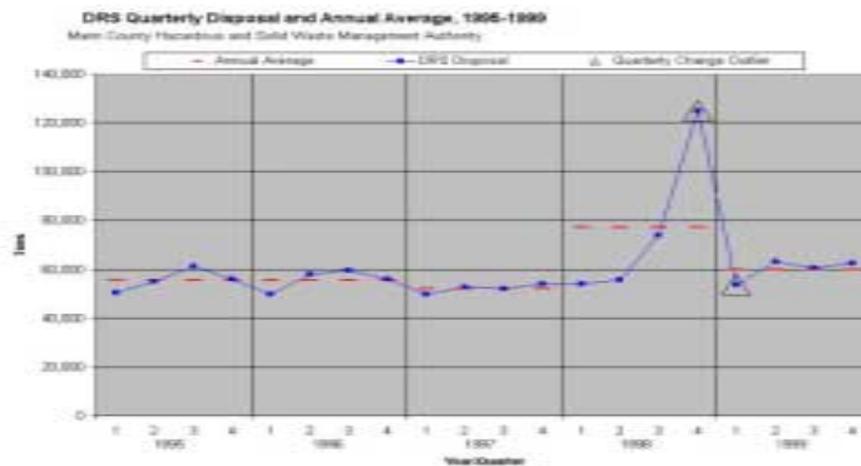
- Annual Average
 - Alpine-Unincorporated
- Seasonal
 - Thousand Oaks



A look at the data

◆ Examples of potential outliers

- Annual Average
 - Alpine-Unincorporated
- Seasonal
 - Thousand Oaks
- Quarterly Change
 - Marin County Hazardous and Solid Waste Management Authority



Summary of the data

- ◆ Methodology used to compare jurisdiction level data to countywide data
 - Example: Los Angeles County Jurisdictions
 - 89 jurisdictions
 - 20 quarters per jurisdiction
 - 1780 quarterly data points
 - 600 quarterly outliers
 - 34% outlier rate

Summary of the data

- ◆ Methodology used to compare jurisdiction level data to countywide data
 - Example: Los Angeles Countywide data
 - 20 quarters
 - 0 quarterly outliers
 - 0% outlier rate

Summary of the data

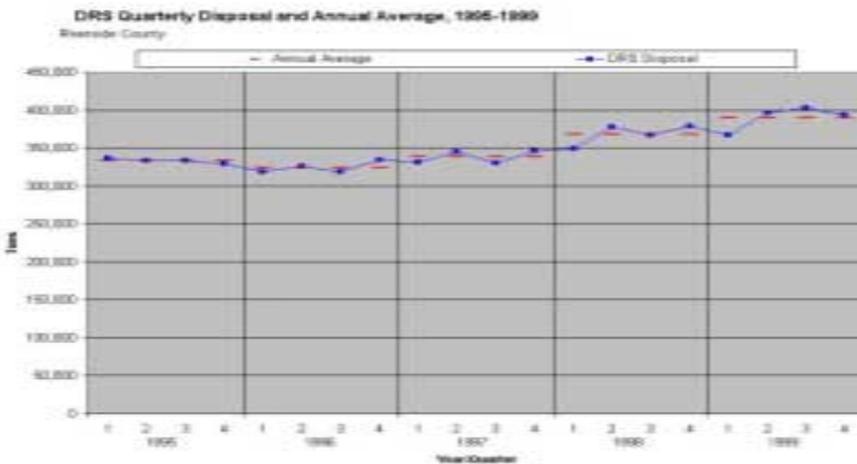
- ◆ Jurisdiction level data show more potential outliers than countywide
- ◆ Many potential outliers disappear when looking at countywide data
 - In 28 counties, the outliers disappear completely
 - In 9 counties, the outliers decrease significantly

Summary of the data

- ◆ Many potential outliers disappear when looking at countywide data
 - In 16 counties there is no change or a slight increase (Amador County)
 - 12 of these counties could qualify to be rural regional agencies, and represent less than 0.5% of statewide disposal
 - The other four counties represent only about ~3% of statewide disposal
 - In four counties, there are no outliers whether looking at jurisdiction or county level data

Summary of the data

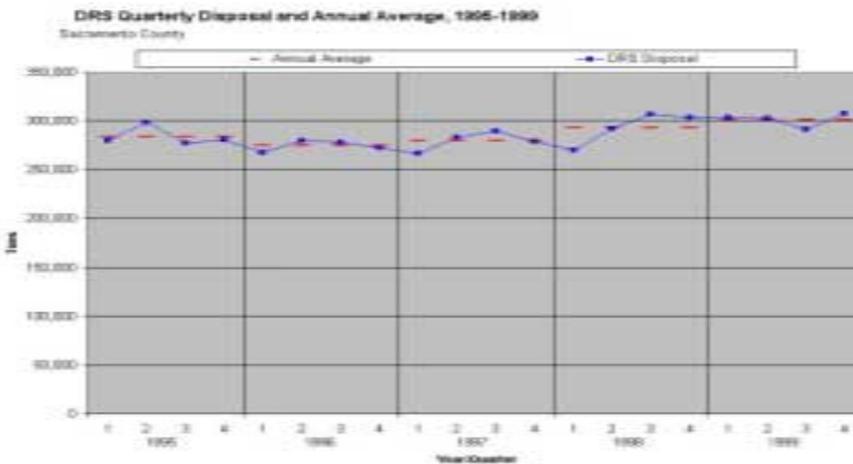
- ◆ Three examples of the data
 - Riverside County
 - ◆ Shows relatively few outliers for jurisdiction level data, and no outliers for countywide data



Summary of the data

◆ Three examples of the data

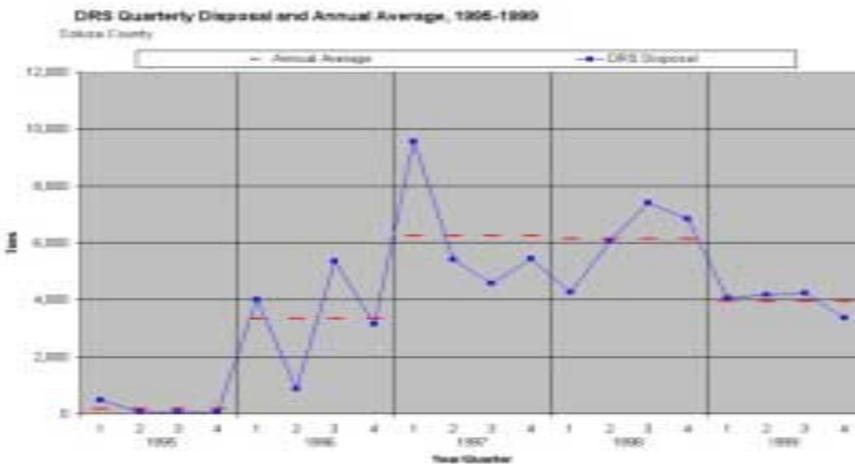
- Riverside County
 - Shows relatively few outliers for jurisdiction level data, and no outliers for countywide data
- Sacramento County
 - Shows relatively large number of outliers for jurisdiction level data, and no outliers for countywide data



Summary of the data

◆ Three examples of the data

- Riverside County
 - Shows relatively few outliers for jurisdiction level data, and no outliers for countywide data
- Sacramento County
 - Shows relatively large number of outliers for jurisdiction level data, and no outliers for countywide data
- Colusa County Regional Agency
 - A Regional Agency that has a large number of outliers, and high variability in quarterly disposal



Conclusions

- ◆ DRS disposal is highly variable at the jurisdiction level
- ◆ Less stable disposal data for smaller jurisdictions (less than 25,000 tons)

Conclusions

- ◆ Countywide disposal is more stable
- ◆ Countywide total disposal under 60,000 tons per year may not be as stable
- ◆ Daily waste origin surveys may provide better data for small jurisdictions and counties

Questions?

Meeting 3

HAULER ISSUES

1. Hauler Issues

1. Some haulers may be motivated economically to misrepresent origin of waste information.
2. Some self-haulers and drivers for haulers don't know actual origin of the waste—when city and county boundaries are enmeshed--whether it comes from the city or the county.
3. There may be no incentive for the facility operator or the hauler to obtain, provide or verify origin information.
4. There is a lack of statewide authority to enforce DRS requirements.
5. There is a disproportionate demand for resources to ensure self-haul waste origin accuracy when self-haul is a minor portion of the total tonnage.
6. There is a lack of standard training & education for facility operators.
7. There is a lack of jurisdiction control over self-haul waste information.
8. Some cash accounts are not verifiable.
9. The gate-keeper is key – but there is no control over private operations

Potential Solutions for Hauler Issues:

Prioritize solutions 1-6 (with 1 as most important) using preliminary criteria for ranking:

- **Solutions available within the existing DRS System**

1. Board provide training to facility supervisors.

- **Solutions requiring legislative or regulatory changes to present DRS system**

2. Establish regions according to waste sheds and measure disposal by region.
3. Raise minimum standards statewide for items such as origin surveys, dispatch-based allocation, cash customer information –for both landfills and MRFs.
4. Exclude self-haul from the disposal measurement.
5. Exempt small loads from disposal measurement.
6. Provide incentives for jurisdictions to form Regional Agencies (RAs), and allow a lower diversion rate or no penalties for individual RA members who fully implement their approved SRRE.

2. FEES AND WASTE LIMITS ISSUES

1. Different operators may use different volume to weight conversion factors resulting in a lack of consistency in allocating waste to jurisdictions.
2. Disposal facility limits on where waste is accepted from and different fees for waste from different places may impact accurate allocation.
3. There may be less information collected for self-haul cash customers.

Potential Solutions for Fees and Waste Limits Issues:

Prioritize solutions 1-3 (with 1 as most important) using the preliminary criteria for ranking:

- **There were no solutions proposed for this issue deemed to be available within the existing DRS system.**

- **Solutions requiring legislative or regulatory changes to present DRS system**

1. **Board set statewide standards and require use of standard conversion factors when scales are not used.**

_____ 2. Establish statewide standards for collecting disposal information, authorize assessment of penalties for misinformation and untimely information, and due process procedures to address errors in the DRS including cash customers.

_____ 3. Standards should be enforced by the State.

3. ENFORCEMENT ISSUES

1. Disposal facility limits on where waste is accepted from and different fees for waste from different places may impact accurate allocation.
2. There are no penalties for misinformation or untimely information.

Potential Solutions for Enforcement Issues:

Prioritize solutions 1-12 (with 1 as most important) using preliminary criteria for ranking)

- **Solutions available within the present system:**

_____ 1. Local jurisdictions can pass ordinances regulating haulers to implement reporting procedures and assess penalties to obtain accurate data and other information and to enforce timeliness of reporting information.

_____ 2. For commercial self-haul, a jurisdiction may require every business permit applicant to provide the jurisdictions of origin information. This information would be e-mailed to the disposal facility operator.

- _____ 3. For commercial self-haul, a jurisdiction may require the dispatchers to report origin information to the county.
- _____ 4. Information feedback – When a jurisdiction finds out that a hauler has misreported origin information a jurisdiction could inform the hauler of the need to report correctly or they will apply penalties.
- _____ 5. Board to conduct county or regional audits of the facility disposal records.

Solutions requiring legislative or regulatory changes to present DRS system:

- _____ 6. Provide incentives for jurisdictions to establish ordinances. For example, incentives to allow lower diversion rates, or to provide grants to jurisdictions to pass ordinances.
- _____ 7. Make misreporting of origin information a criminal offense.
- _____ 8. Board to recognize a margin of error in the disposal reporting system. If a jurisdiction falls within the margin of error (e.g., 5% of goal), they could be considered in compliance with the diversion mandates.
- _____ 9. Allow a variable diversion rate based on the region or size of a jurisdiction.
- _____ 10. Board to provide money to a jurisdiction to fund independent audits.
- _____ 11. Increase the CIWMB fee and pass it on to the jurisdiction in which the facility is located to fund audits, education, etc.
- _____ 12. When a hauler has misreported origin information, allow the jurisdiction to report that to the Board. The Board can inform the hauler to report correctly or be subject to fines or other penalties.

4. SCALES AND STANDARD WEIGHTS ISSUES

- 1. Lack of scales at disposal facilities may create allocation problems for some jurisdictions.
- 2. There is inconsistent/ lack of standard conversion weight factors for self-haul vehicles.

Potential Solutions for Scales and Standard Weights Issues:

(Prioritize solutions 1-8 (with 1 as most important) using preliminary criteria for ranking).

• **Solutions available within the present DRS system:**

- _____ 1. Jurisdictions set local conversion standards based on periodic sampling of vehicles at disposal facilities.
- _____ 2. Jurisdiction purchase computers and software compatible with all others' computer software and systems and which provides standard formatting for importing and exporting data.
- _____ 3. Board recognize that tonnage amounts are best estimates.

• **Solutions requiring legislative or regulatory changes to present DRS system:**

- _____ 4. Board establish statewide standard conversion factors as default. A jurisdiction may set alternative site-specific standards.
- _____ 5. Board require scales at all facilities above a certain tonnage per day.
- _____ 6. Board provide loans or grants to purchase computers with

compatible software and require standardized data collection.

- _____ 7. Require more emphasis on diversion programs than tonnage/diversion rates.
- _____ 8. Require facility operators to collect standardized data (e.g., hauler and origin).
- _____ 9. Board provide loans and grants for scales for those facilities without scales.

ALTERNATIVE DAILY COVER: A QUICK LOOK



What Is ADC ?

"Alternative daily cover means any material, other than soil, used as a daily cover."

Approved Materials

- ◆ Ash
- ◆ Auto Shredder Waste
- ◆ C & D
- ◆ Compost
- ◆ Green Material
- ◆ Contaminated Sediment
- ◆ Sludge
- ◆ Tires

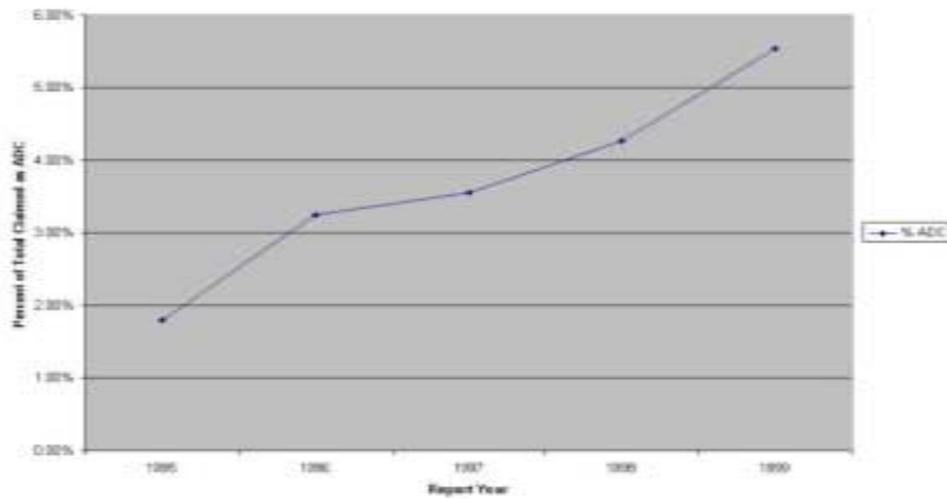
The First Steps

- ◆ Who uses ADC ?
- ◆ How much ?
- ◆ Trends ?

The Next Steps

- ◆ DRS data
- ◆ 1995 thru 1999
- ◆ By county

% ADC - Statewide



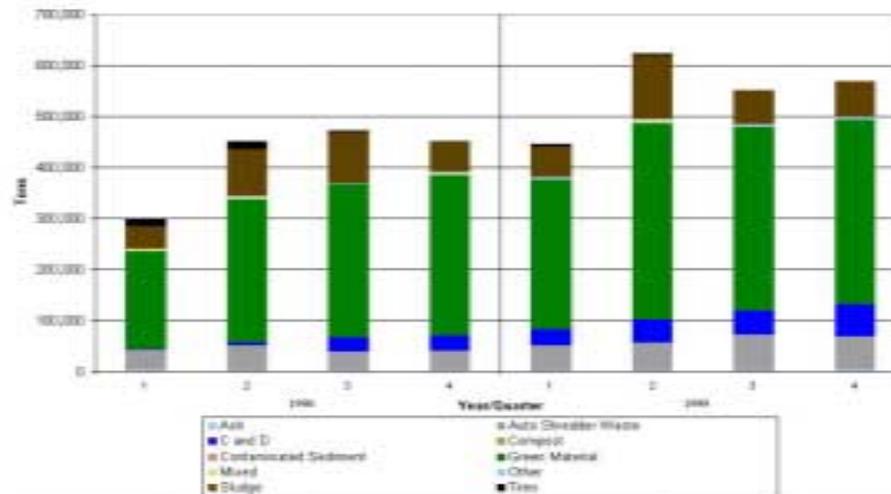
Statewide ADC - 1999

- ◆ Total Intake – 39,480,980 tons
- ◆ Disposal – 37,293,168 tons
- ◆ ADC – 2,187,812 tons

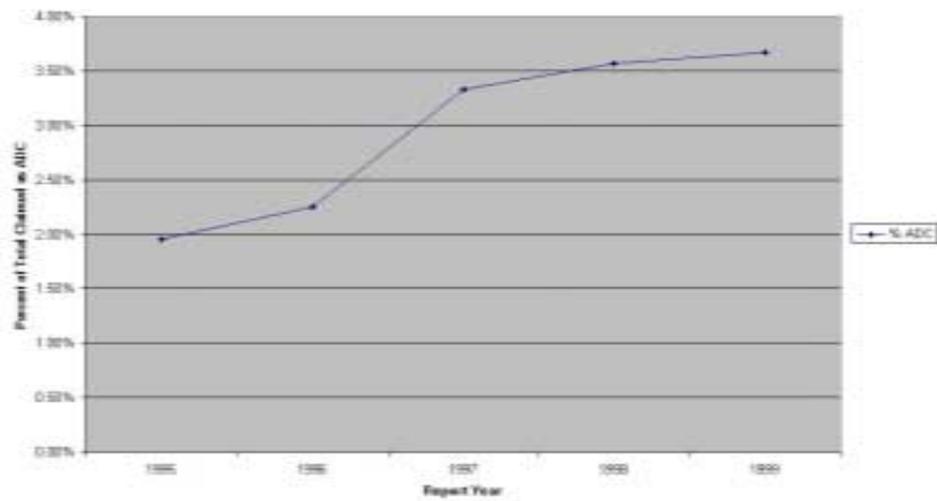
1999 ADC – By Material

| | |
|-----------------------|----------------|
| Ash | 7,445 tons |
| Auto Shredder Waste | 240,236 tons |
| C & D | 188,920 tons |
| Compost | 472 tons |
| Green Material | 1,396,026 tons |
| Contaminated Sediment | 17 tons |
| Sludge | 320,546 tons |
| Tires | 8,457 tons |
| Mixed | 4,783 tons |
| Other | 20,911 tons |

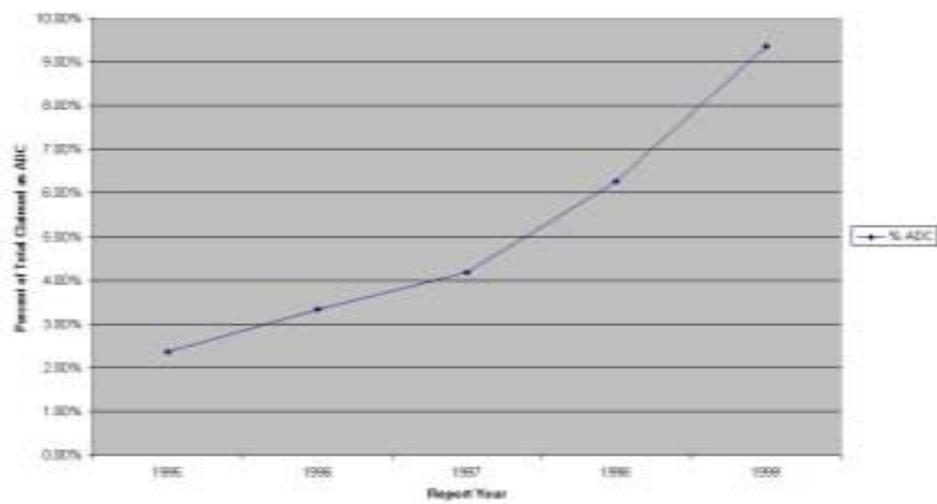
Quarterly Alternative Daily Cover (ADC) by Material Type, 1998-99
Statewide | Total at Dublin



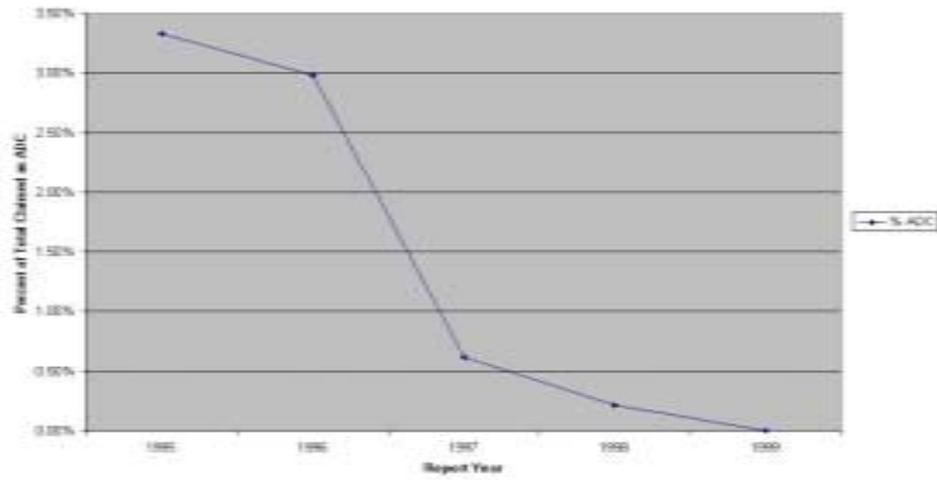
% ADC - Los Angeles County



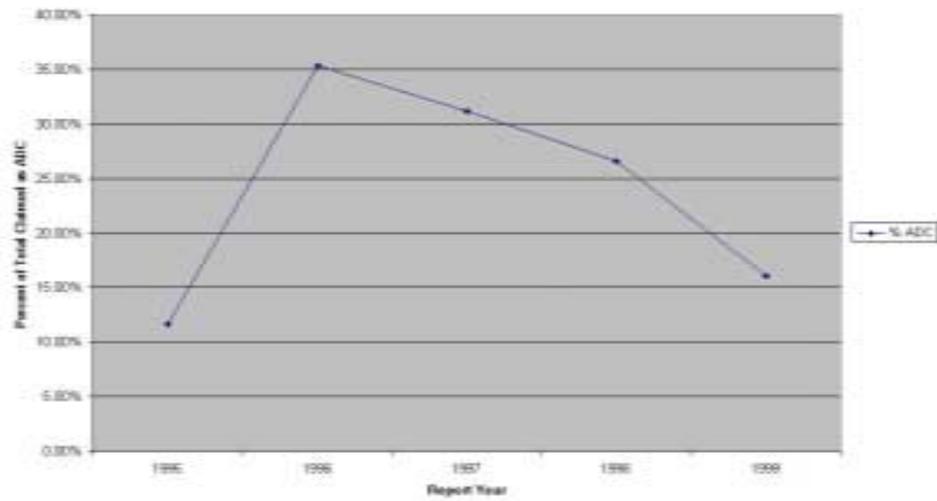
% ADC - San Bernardino County



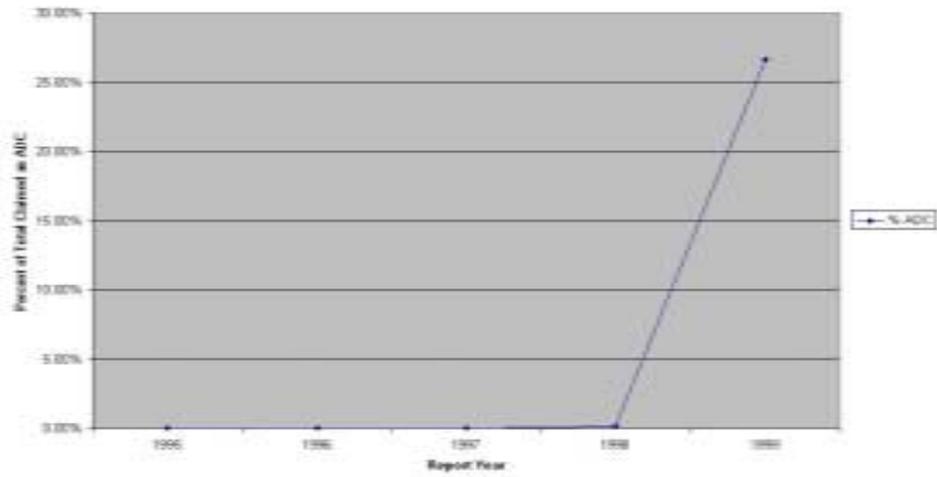
% ADC - Kern County



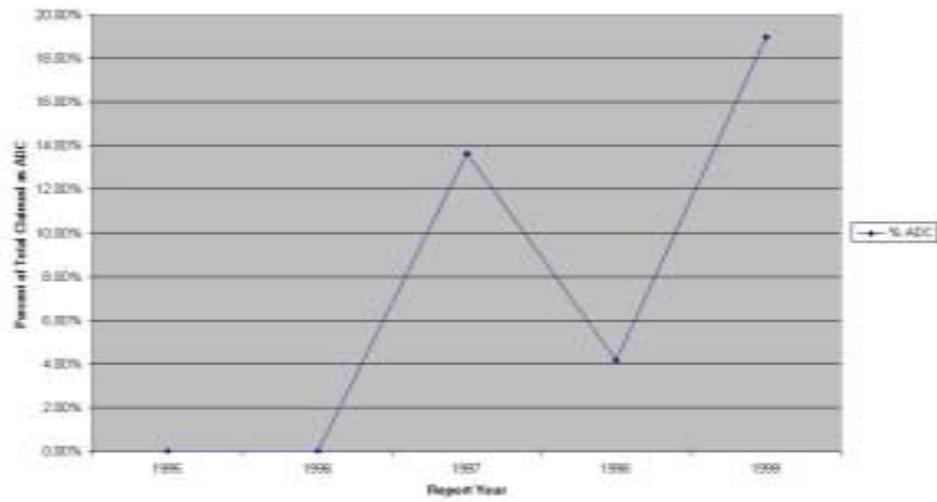
% ADC - Marin County HSWMA



% ADC - Humboldt County



% ADC - Yuba/Sutter RWMA



Conclusions

- ◆ Upward trend – Statewide
- ◆ No trend – countywide
- ◆ Continue monitoring use

Questions ?

SPECIAL WASTE ISSUES FOR DISCUSSION DISPOSAL REPORTING WORKING GROUP

May 2, 2001

SPECIAL WASTE ISSUE # 1

May be an inequity because some waste types are counted as disposal and others are not depending on location and permit status of disposal facility.

Potential Solutions:

Solutions available within the existing DRS System

Solutions requiring legislative or regulatory changes to present DRS system

Exclude some special waste materials from counting as disposal.

SPECIAL WASTE ISSUE # 2

There are limited diversion opportunities for special wastes as a whole.

Special waste handling takes away from the implementation of diversion programs.

Potential Solutions:

Solutions available within the existing DRS System

Require separation of waste at construction and demolition sites to maximize potential reuse.

Promote incentives for development of landfill alternatives.

SPECIAL WASTE ISSUE # 3

ADC may be overused at some landfills

Potential Solutions:

Solutions available within the existing DRS System

Solutions requiring legislative or regulatory changes to present DRS system

Eliminate ADC from counting as diversion.

Increase focus on ADC use at inspections by Local Enforcement Agency and Board staff.

SPECIAL WASTES

Special Wastes

What are Special Wastes?

- Hazardous waste or waste classified as a special waste that has been granted a variance for disposal by the Department of Toxic Substances Control
- Special waste also includes any solid waste which, because of its source of generation, physical, chemical or biological characteristics or unique disposal practices, requires special handling

Regulating Special Wastes

- Non-hazardous waste that consist of, or contain, pollutants that could be released into the water or air are regulated by the regional water boards and air districts
- Disposal requirements vary between regions, landfills and the waste generators and thus there is no statewide set rules for special wastes

Examples of Special Wastes

- Special wastes include but are not limited to:
 - Contaminated soils, auto shredder fluff, drilling muds, waste water/sludge, ash, septage, and pesticide containers.
 - Asbestos is a hazardous waste and cannot be reused, recycled, or otherwise diverted.

Tracking and Reporting Special Wastes

- Some landfills require non hazardous manifest or bill of lading for special waste
- Waste disposed in Class II and Class III landfills are included in goal measurement
- Many landfills and DRS do not track special waste separately
- If disposed - Integrated Waste Management disposal fee is required
- Some landfills may charge varying fees

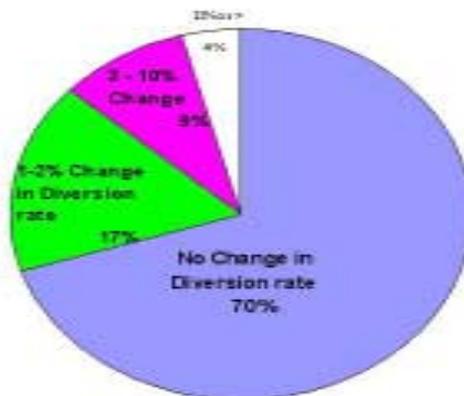
Are there Diversion Options?

- Depends on Regional Water Quality control Board, Air District, Local Ordinances, Generator
- Ash – Land spread as soil amendment, ADC
- PCS – road base, cover
- Auto Shredder fluff – ADC
- Sludge - ADC

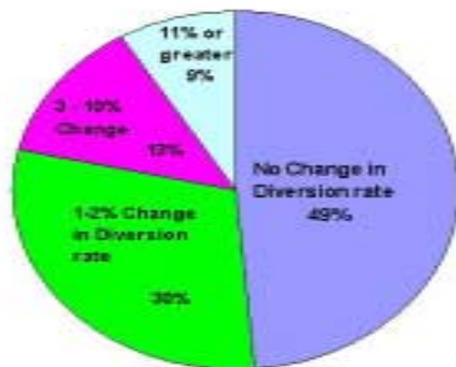
Affected Jurisdictions

- Jurisdictions negatively impacted may appeal to Board concerning special waste impact.
- Some jurisdictions positively affected because of diversion.

Diversion rate changes due to Special Waste disposal at Forward Inc. Landfill 1997



Diversion Rate Changes due to Special Waste disposal at Ferrand Inc.
Landfill 1996



SELF HAUL RANKING

DRS SELF HAUL ISSUES PRIORITY RANKING RESULTS

| <u>ISSUE/Solution #</u> | <u>RANKING</u> |
|--|----------------|
| ISSUE # 1-Hauler Issues | |
| Solution # 1 | Medium |
| Solution # 2 | Low |
| Solution # 3 | Medium |
| Solution # 4 | Medium |
| Solution # 5 | High |
| Solution # 6 | Medium |
| ISSUE # 2-Fees and Waste Limits | |
| Solution # 1 | Medium |
| Solution # 2 | High |
| Solution # 3 | Medium |
| ISSUE # 3-Enforcement | |
| Solution # 1 | Medium |
| Solution # 2 | Low |
| Solution # 3 | Medium |
| Solution # 4 | Medium |
| Solution # 5 | Medium |
| Solution # 6 | Medium |
| Solution # 7 | Medium |
| Solution # 8 | High |
| Solution # 9 | Low |
| Solution # 10 | Medium |
| Solution # 11 | Low |
| Solution # 12 | Medium |

ISSUE # 4-Scales and Standard Weights

| | |
|--------------|--------|
| Solution # 1 | Low |
| Solution # 2 | Low |
| Solution # 3 | Medium |
| Solution # 4 | Medium |
| Solution # 5 | Medium |
| Solution # 6 | Medium |
| Solution # 7 | High |
| Solution # 8 | High |
| Solution # 9 | Medium |

RECOMMENDATIONS FORWARDED TO SYNTHESIS GROUP FROM DRS WORKING GROUP

| Ref # | Solution Considered | Working Group Recommendation | Issue Addressed | Criteria Met/Considerations | Additional Staff Comments |
|------------|--|--|--|---|--|
| | Self-Haul | | | | |
| DRS-SH-1.1 | Board provide training to facility supervisors. | Forward to Synthesis Group - Yes Short term, Medium priority | Hauler/ Self-Haul Issues: Haulers/ drivers do not know or have incentive to obtain accurate waste origin; no DRS enforcement for haulers; lack of training and education at facilities; gatekeeper is key/ jurisdictions have no control over private facilities | Increase Accuracy Cost – Effective Ease of Use/ Flexibility | Some cost to the Board. Additional funding may be needed if cannot be accomplished within existing budget. |
| DRS-SH-1.3 | Raise minimum standards statewide for items such as origin surveys, dispatch-based allocation, cash customer information –for landfills, material recovery facilities and transfer stations. | Forward to Synthesis Group- Yes Long term, Medium priority | | Increase Accuracy Verifiable | Requires regulatory changes. More facilities are conducting daily surveys already. May be a hardship for rural counties. |
| DRS-SH-1.5 | Exempt small loads from disposal measurement (one ton or less). | Forward to Synthesis Group – Yes Long term, High priority | | Cost – Effective Ease of Use/ Flexibility | Requires regulatory change. If this is to exempt disposal tonnages from DRS, there will be no ability to cross-check with BOE.; therefore, disposal numbers less accurate and the Board won't know how much less accurate. For large counties small loads may be a small part of the waste disposal. For smaller, rural counties small loads may be significant. |

| Ref # | Solution Considered | Working Group Recommendation | Issue Addressed | Criteria Met/Considerations | Additional Staff Comments |
|------------|--|--|---|--|---|
| DRS-SH-1.6 | Provide incentives for jurisdictions to form Regional Agencies (RA), such as allow a lower diversion rate or no penalties for individual RA members who fully implement their approved SRRE. | Forward to Synthesis Group – Yes Long term, Medium priority | | Increase Accuracy Cost-Effective Enforceable | Combined with Alternatives. See Table 1-a-4: Requires statutory change. Additional incentives could include reducing potential maximum fines (currently are \$10,000/day per jurisdiction); grants or loans specifically for programs in regional agencies; preference to regional agencies for existing Board grants and loans. Because of the configuration of their waste sheds, some counties may wish to participate in more than one regional agency; but this makes them liable to multiple fines, and this disincentive should be addressed. |
| DRS-SH-2.2 | Establish statewide law setting standards for collecting disposal tonnage information, authorize assessment of penalties for misinformation and untimely information, and due process procedures to address errors in the DRS including cash customers. Standards should be enforced by the State. | Forward to Synthesis Group – Yes Long term, High priority | Fees and Waste Limits: Inaccurate allocation to jurisdictions may be due to inconsistent volume-to-weight conversion; facilities limiting waste disposal from some jurisdictions; and lack of information collected for self-haul cash customers. | Increase Accuracy Verifiable Enforceable | Requires statutory and regulatory change. Significant cost to the Board. Board responsible for enforcement; could limit jurisdictions' control; may increase cost to jurisdictions to increase reporting. |

| Ref # | Solution Considered | Working Group Recommendation | Issue Addressed | Criteria Met/Considerations | Additional Staff Comments |
|------------|---|--|---|--|---|
| DRS-SH-3.1 | Board draft model ordinance and recommend local jurisdictions pass ordinances to regulate haulers to implement reporting procedures, to assess penalties to obtain accurate data and other information and to enforce timeliness of reporting information. Board should encourage jurisdictions to require commercial self-haulers to report origin information to the county. Information feedback – When a jurisdiction finds out that a hauler has misreported origin information a jurisdiction could inform the hauler of the need to report correctly or they will apply penalties. | Forward to Synthesis Group – Yes Short term, Medium priority | Enforcement Issues: No penalties for misinformation or untimely information; facilities may limit waste disposal from some jurisdictions or charge different fees resulting in inaccurate origin information. | Increase Accuracy Verifiable Enforceable | Some increased cost to the Board to develop model ordinance. Places more burden on and increases cost to the jurisdictions to pass ordinances and enforce reporting. |
| DRS-SH-3.2 | Board to conduct county or regional audits of the facility disposal records. | Forward to Synthesis Group – Yes Short term, High priority | | Increase Accuracy Verifiable Enforceable | Potential increased cost to the Board, depending on the number and frequency of the audits. Past audits have resolved issues. |
| DRS-SH-3.3 | Provide incentives for jurisdictions to establish ordinances. For example, provide grants to jurisdictions to pass ordinances. | Forward to Synthesis Group – Yes Long term, Medium priority | | Increase Accuracy Cost-Effective Enforceable | Requires statute or regulatory change. Increased cost to the Board. |
| DRS-SH-3.4 | Make misreporting of origin information a criminal offense. | Forward to Synthesis Group – Yes Long term, Medium priority | | Increase Accuracy Enforceable | Requires statute change. Increased cost for enforcement. Could be cost for jurisdiction or the Board, depending on statute change. |
| DRS-SH-3.5 | Board to recognize there is the potential for significant errors in the disposal reporting system, and look at good faith effort and program implementation first; diversion rates second. | Forward to Synthesis Group – Yes Long term, High priority | | Cost-Effective Enforceable | Board and jurisdictions would focus less time and expense on tracking each disposal ton and focus more on diversion program implementation. The Board currently has the ability to consider good faith efforts when jurisdictions are unable to achieve the goal. |

| Ref # | Solution Considered | Working Group Recommendation | Issue Addressed | Criteria Met/Considerations | Additional Staff Comments |
|------------|--|--|---|--|--|
| DRS-SH-3.7 | Board to provide money to a jurisdiction to fund independent audits. | Forward to Synthesis Group – Yes Long term, Medium priority | | Increase Accuracy Verifiable Cost-Effective Enforceable | Increased cost to the Board. Jurisdictions may be able to increase accuracy of disposal numbers through landfill audits. Audits might not be consistent statewide. |
| DRS-SH-4.5 | Board require scales at all solid waste facilities above a certain tonnage per day. | Forward to Synthesis Group – Yes Long term, Medium priority | Scales and Standard Weights Issues: Lack of scales and inconsistent standard conversion weight factors for SH vehicle may cause inaccuracies in waste allocation. | Increase Accuracy Enforceable | Would require statutory or regulatory change. Increased cost to facility operators/ jurisdictions. Greater financial burden on rural jurisdictions because they are most affected, but rural jurisdictions make up small percentage of the waste stream. Tonnage limit may exclude rural jurisdictions from requirement. |
| DRS-SH-4.6 | Board provide loans or grants to solid waste facilities to purchase computers with compatible software and require standardized data collection. | Forward to Synthesis Group – Yes Long term, Medium priority | | Increase Accuracy Verifiable | Would require statutory change. Increased cost to the Board. Would require a change in facility operations that use a specific software system for multiple purposes (e.g., billing). |
| DRS-SH-4.7 | Require more emphasis on diversion programs than tonnage/diversion rates. | Forward to Synthesis Group – Yes Long term, High priority | | Cost-Effective Ease of Use/ Flexibility | Combined with Alternatives. See table 2-b: Determining program effectiveness and monitoring progress may mean diversion needs to be counted. Evaluating private diversion programs may be difficult and/or controversial for local governments and the Board. Some Board resources would be required to develop methods and/or regulations. |
| | Allocation | | | | |
| DRS-AL-1.2 | Change Annual Report due date to November of following year. | Forward to Synthesis Group – Yes Long term, Medium priority | Jurisdictions need more timely information to resolve allocation problems. It takes almost 4 months to get the information and it is hard to reconcile. | Increase Accuracy Verifiable Enforceable Ease of Use/ Flexibility | Would require regulatory and statutory change. Allows more time for jurisdictions to verify disposal data. Jurisdictions will not know if they've achieved the goal for the past year until one year and 7 months after, and would not be likely to make adjustments to program implementation, if needed, until that much later. |

| Ref # | Solution Considered | Working Group Recommendation | Issue Addressed | Criteria Met/Considerations | Additional Staff Comments |
|------------|---|---|---|---|---|
| DRS-AL-1.3 | Landfill and transfer station operators shall be required to send jurisdictions a copy of information at the same time they send it to the county, and notify affected cities of any changes reported to the numbers at the same time they notify the county. | Forward to Synthesis Group – Yes Long term, High priority | | Increase Accuracy Verifiable Cost-Effective Ease of Use/ Flexibility | Would require regulatory or statutory change. Would allow jurisdictions to more quickly verify disposal data. |
| DRS-AL-2.2 | Use hauler company provided origin information. | Forward to Synthesis Group – Yes Short term, High priority | 1.Mixed loads may not be allocated correctly. Computer programs may not have the capacity to collect information on more than one city or more than a few cities for one truck load. 2.Cities and/or counties having similar names may cause misallocation. 3.Some landfills charge different fees for different jurisdictions or only accept waste from certain jurisdictions. This may create an economic incentive to misreport origin. 4. Some haulers or facilities may have contracts with some jurisdictions and not others to divert a certain percentage of waste. This may cause incentive to misreport origin. | Increase Accuracy Verifiable Cost-Effective | Would require regulatory or statutory change. Hauler origin information is currently not accessible statewide. Some counties are currently using hauler information and it proves to be more accurate and verifiable. |
| DRS-AL-2.7 | Require disposal origin reported by county not jurisdiction. | Forward to Synthesis Group – Yes Long term, High priority | | Increase Accuracy Verifiable Cost-Effective Ease of Use/ Flexibility | Combined with Alternatives. See Table 1-a-3: Requires statutory change, unlike regional agencies. No clear enforcement mechanism. |

| Ref # | Solution Considered | Working Group Recommendation | Issue Addressed | Criteria Met/Considerations | Additional Staff Comments |
|--------------|---|---|--|--|---|
| DRS-AL-3.2 | Require daily surveys and weigh every load except loads transported in pick-up trucks/cars (pick-up trucks are defined as less than one ton). Provide an exemption to the daily survey for small, rural facilities. | Forward to Synthesis Group – Yes Long term, High priority | Major waste generating events that occur during the survey week skew disposal numbers. | Increase Accuracy Verifiable Enforceable | No change in regulation or statute needed. Would increase accuracy of the disposal data. Could be easier to train scale house staff to conduct daily, rather than trying to remember the survey week. Consistent operating practice would also increase accuracy of the data. Exempting rural counties would not create for them a financial burden, and would not require that they buy scales. Rural counties' waste makes up small percentage of the state's waste stream. Exempting pick up trucks and small loads would allow smoother traffic flow at the scale house. If exempting pick-up trucks less than one ton is intended to exempt disposal tonnages from DRS, there will be no ability to cross-check the data with BOE. |
| DRS-AL-4.2 | Require facilities to post signs about origin collection at facilities. Language drafted by the State. | Forward to Synthesis Group – Yes Short term, Medium priority | There are no standards or guidelines for collection of origin data. | Increase Accuracy Cost-Effective Enforceable Ease of Use/ Flexibility | Would not require regulatory or statutory change. Would assist facility operators in obtaining correct origin information. Some facilities currently have signs posted, which have proven to be successful in acquiring origin information. |
| DRS-AL-4.3 | Establish statewide standards for collection of waste origin and hauler data for loads transported in vehicles over 1 ton in size. | Forward to Synthesis Group – Yes Long term, High priority | | Increase Accuracy Verifiable Enforceable | Would require regulatory or statutory change. Standardizing collection of disposal amounts would increase efficiency and accuracy of the disposal data for the larger vehicle loads (over 1 ton). This could exempt some or most of the rural facilities since many of their loads are small self-haul. |
| DRS-AL4.5 | State development of a training program for counties on DRS data collection. | Forward to Synthesis Group – Yes Short term, High Priority | | Increase Accuracy Verifiable Cost-Effective Ease of Use/ Flexibility | Would not require regulatory or statutory change. Increased cost to the Board, especially if there is significant staff turnover. |

| Ref # | Solution Considered | Working Group Recommendation | Issue Addressed | Criteria Met/Considerations | Additional Staff Comments |
|-----------------------------|---|---|---|--|---|
| DRS-AL-5.1 | Make solid waste facility cooperation a requirement as part of the solid waste facility permit and State provide enforcement authority. | Forward to Synthesis Group – Yes Long term, High priority | Sometimes it is difficult to get information from solid waste facilities. It is costly and time consuming to verify facility information. There are no penalties for misinformation or untimely information. | Increase Accuracy Verifiable Enforceable | Would require regulatory or statutory change. Increased cost to the Board. Increased responsibility for LEAs. Disposal data more accurate. |
| DRS-AL-5.2 | Establish a regulatory requirement that upon jurisdictional request, facility operators provide jurisdictions with facility customer information in a standardized, readily retrievable, user-friendly, standardized format. There should be an exemption for small rural facilities. | Forward to Synthesis Group – Yes Long term, High priority | | Increase Accuracy Verifiable Enforceable | Would require regulatory and statutory change. Potential increased cost to facility operators. Exemption for rural facilities. |
| <u>Special Waste</u> | | | | | |
| DRS-SW-1.1 | The Board should resolve the issue of treating similar disposed waste differently at different facilities. The Board should resolve these issues with input from stakeholders, including jurisdictions. | Forward to Synthesis Group – Yes Short term, High priority | Treating some facilities differently causes inequity because some waste types are counted as disposal and others are not, depending on regional boards and local agency requirements and location and permit status of the disposal facility. | Increase Accuracy Verifiable Enforceable | Combined with Alternatives. See Table 3-a: Issue of inert facilities will be addressed in upcoming C&D regulations. Have existing Board policy on Class II facilities. |

| Ref # | Solution Considered | Working Group Recommendation | Issue Addressed | Criteria Met/Considerations | Additional Staff Comments |
|--------------|---|---|--|--|--|
| DRS-SW-1.2 | Exclude inert waste, not subject to the BOE fee and disposed at mine reclamation facilities, from the Disposal Reporting System (including the four Los Angeles County inert sites that are currently permitted). | Forward to Synthesis Group – Yes Long term, High priority | | Increase Accuracy Verifiable Enforceable | Would require regulatory or statutory change. Jurisdictions that send inert waste to those facilities will need to take tonnages out of their base year amounts, and would not be able to count any of the diversion at those sites. This could affect jurisdictions that changed their base year as part of the “LA fix”. |
| DRS-SW-2.1 | Board support pending legislation that will exclude Class II-type waste from counting as disposal in the Disposal Reporting System. | Forward to Synthesis Group – Yes Short term, High priority | There are limited diversion opportunities for special wastes as a whole. Special waste handling takes away from the implementation of diversion programs. | Increase Accuracy Verifiable Enforceable | If Class II tonnages are included in the jurisdiction’s base year, the amounts would need to be removed. This might discourage any treatment to allow the materials to be reused or recycled. |
| DRS-SW-2.2 | Board establish economic incentives for alternatives to disposal for all special wastes. | Forward to Synthesis Group – Yes Long term, High priority | | Cost-Effective | Would require regulatory or statutory change. This may not be a benefit for most jurisdictions where special waste constitutes a small percentage of the waste stream. |

| Ref # | Solution Considered | Working Group Recommendation | Issue Addressed | Criteria Met/Considerations | Additional Staff Comments |
|--------------|---|---|--|---|--|
| DRS-SW-3.1 | Update Local Enforcement Agency (LEA) Alternative Daily Cover (ADC) Advisory # 48, establishing performance standards using industry standards and current law. The update should include input from stakeholders in addition to the LEA community. | Forward to Synthesis Group – Yes Short term, High priority | Alternative Daily Cover (ADC) may be overused at some landfills. | Increase Accuracy Verifiable Cost-Effective | Would not require regulatory or statutory change, but Board action may be needed. The use of industry standards may ensure consistency in how ADC is used at facilities to prevent overuse or misreporting of ADC. |
| DRS-SW-3.2 | Increase the number and types of Disposal Reporting System (DRS) standard reports available on the Board website, including ADC by material type and jurisdiction disposal data by disposal facility. | Forward to Synthesis Group – Yes Short term, High priority | | Cost-Effective Ease of Use/ Flexibility | Would not require regulatory or statutory change. This recommendation will support the Board's efforts to make information and data readily available. |

TABLE 2. RECOMMENDATIONS NOT FORWARDED TO SYNTHESIS GROUP FROM DRS WORKING GROUP

| Ref # | Solution Considered | Working Group Recommendation | Issue Addressed | Criteria Met/Considerations | Additional Staff Comments |
|--------------|---|---|--|--|--|
| DRS-SH-1.2 | Establish regions according to waste sheds and measure disposal by region. | Forward to Synthesis Group – No Long term, Low priority | Hauler/ Self-Haul Issues: Haulers/ drivers do not know or have incentive to obtain accurate waste origin; no DRS enforcement for haulers; lack of training and education at facilities; gatekeeper is key/ jurisdictions have no control over private facilities | Increase Accuracy Verifiable Cost – Effective Enforceable Ease of Use/ Flexibility | If this requires formation of and measurement by waste shed regions, would require statute change. Jurisdictions now can voluntarily form and report disposal by waste shed regions. |
| DRS-SH-1.4 | Exclude self-haul from the disposal measurement | Forward to Synthesis Group – No Long term, Medium priority | | Cost – Effective Ease of Use/ Flexibility | If this is to exempt disposal tonnages from DRS, there will be no ability to cross-check with BOE.; therefore, disposal numbers less accurate and the Board won't know how much less accurate. For large counties self-haul may be a small part of the waste disposal. For smaller, rural counties self-haul may be significant. |
| DRS-SH-2.1 | Board set statewide default standards and require use of standard conversion factors where scales do not exist. | Forward to Synthesis Group – No Long term, Medium priority | Fees and Waste Limits: Inaccurate allocation to jurisdictions may be due to inconsistent volume-to-weight conversion; facilities limiting waste disposal from some jurisdictions; and lack of information collected for self-haul cash customers | Increase Accuracy Verifiable Cost-Effective Enforceable Ease of Use/Flexibility | Requires statute or regulatory change. Would make consistent weight measurement for loads that currently vary. |

| Ref # | Solution Considered | Working Group Recommendation | Issue Addressed | Criteria Met/Considerations | Additional Staff Comments |
|------------|--|---|---|---|---|
| DRS-SH-3.6 | Allow a variable diversion rate based on the region or size of a jurisdiction. | Forward to Synthesis Group – No Long term, Low priority | Enforcement Issues: No penalties for misinformation or untimely information; facilities may limit waste disposal from some jurisdictions or charge different fees resulting in inaccurate origin information. | Cost-Effective Enforceable Ease of Use/ Flexibility | May reduce staff work if different goals are established in law and don't require review of additional paperwork. Some jurisdictions could be required to divert more than 50%. |
| DRS-SH-3.8 | Increase the CIWMB fee and pass it on to the jurisdiction in which the facility is located to fund audits, education, etc. | Forward to Synthesis Group – No Long term, Low priority | | Increase Accuracy Cost-Effective Enforceable | Increased cost to landfill customers. Cost-effective for jurisdictions. Provides more Board assistance to jurisdictions. |
| DRS-SH-3.9 | When a hauler has neglected to report or has misreported origin information, allow the jurisdiction to report that to the Board. The Board can inform the hauler to report correctly or be subject to fines. | Forward to Synthesis Group – No Long term, Medium priority | | Increase Accuracy Verifiable Enforceable | Would require statutory change. Could increase Board costs for enforcement. |
| DRS-SH-4.1 | Jurisdictions set local conversion standards based on periodic sampling of vehicles at disposal facilities. | Forward to Synthesis Group No Short term, Low priority | Scales and Standard Weights Issues: Lack of scales and inconsistent standard conversion weight factors for SH vehicle may cause inaccuracies in waste allocation. | Increase Accuracy Cost-Effective | Conducting surveys more costly to jurisdictions. No consistent statewide method. |

| Ref # | Solution Considered | Working Group Recommendation | Issue Addressed | Criteria Met/Considerations | Additional Staff Comments |
|--------------|---|---|------------------------|--|--|
| DRS-SH-4.2 | Jurisdictions purchase computers compatible with all others' computer software and systems and which provides standard formatting for importing and exporting data. | Forward to Synthesis Group – No Short term, Low priority | | Ease of Use/ Flexibility | Increased cost to jurisdictions. Potentially incompatible with existing software jurisdictions use for other purposes. |
| DRS-SH-4.3 | Board recognize that tonnage amounts are best estimates. | Forward to Synthesis Group No Short term, Medium priority | | Cost-Effective Enforceable Ease of Use/ Flexibility | Allows jurisdictions to focus more on programs and less effort and expense on making disposal tonnages more accurate. |
| DRS-SH-4.4 | Board establish statewide standard conversion factors as default. A facility may set alternative site-specific standards based on Board procedure. | Forward to Synthesis Group - No Long term, Medium priority | | Increase Accuracy Cost-Effective Enforceable Ease of Use/ Flexibility | Would require regulatory or statutory change. Increased cost to the Board. Greater consistency in measurement results in overall greater accuracy. |
| DRS-SH-4.8 | Require facility operators to collect standardized data (e.g., hauler and origin) | Forward to Synthesis Group – No Long term, High priority | | Increase Accuracy Verifiable Enforceable | Would require regulatory or statutory change. Increased cost to facility operators. |
| DRS-SH-4.9 | Board provide loans and grants for scales for those facilities without scales. | Forward to Synthesis Group - No Long term, Medium priority | | Increase Accuracy Cost-Effective Ease of Use/ Flexibility | Would require regulatory or statutory change. Increased cost to the Board. More rural facilities need scales, but they make up small percentage of the waste stream. |
| | Allocation | | | | |

| Ref # | Solution Considered | Working Group Recommendation | Issue Addressed | Criteria Met/Considerations | Additional Staff Comments |
|------------|--|--|---|--|---|
| DRS-AL-1.1 | Change reporting due dates (Title 14 CCR sec 18807) decreasing lag time. | Forward to Synthesis Group – No Long term, Low priority | Jurisdictions need more timely information to resolve allocation problems. It takes almost 4 months to get the information and it is hard to reconcile. | Increase Accuracy Verifiable Enforceable Ease of Use/ Flexibility | Would require regulatory or statutory change. Would allow for more timely reporting for jurisdictions to verify accuracy of data. |
| DRS-AL-1.4 | CIWMB create a standardized, interactive system on the internet where landfill operators could directly input data, and where all interested parties could see it. | Forward to Synthesis Group – No Long term, not ranked | | Increase Accuracy Verifiable | Increased cost to the Board. May cause confusion among interested parties if data is not verified before being made available on the web. |

| Ref # | Solution Considered | Working Group Recommendation | Issue Addressed | Criteria Met/Considerations | Additional Staff Comments |
|------------|--|--|---|--|---|
| DRS-AL-2.1 | Voluntarily Regionalize jurisdictions by wasteshed. | Forward to Synthesis Group – No Short term, Not recommended | 1. Mixed loads may not be allocated correctly. Computer programs may not have the capacity to collect information on more than one city or more than a few cities for one truck load. 2. Cities and/or counties having similar names may cause misallocation. 3. Some landfills charge different fees for different jurisdictions or only accept waste from certain jurisdictions. This may create an economic incentive to misreport origin. 4. Some haulers or facilities may have contracts with some jurisdictions and not others to divert a certain percentage of waste. This may cause incentive to misreport origin. | Increase Accuracy Verifiable Cost-Effective Enforceable Ease of Use/ Flexibility | Would not require statutory or regulatory change. Jurisdictions can already voluntarily regionalize according to waste shed (e.g., Napa unincorporated). |
| DRS-AL-2.3 | Use an agreed upon percent (county/cities) to allocate jurisdictionally mixed waste loads. | Forward to Synthesis Group – No Short term, Not recommended | | Cost-Effective Ease of Use/ Flexibility | Where the loads are consistent this would be an efficient way to allocate waste. This would be less effective where loads vary from day to day, month-to-month, etc. At least one county practices this method of waste allocation. |

| Ref # | Solution Considered | Working Group Recommendation | Issue Addressed | Criteria Met/Considerations | Additional Staff Comments |
|--------------|--|--|--|--|--|
| DRS-AL-2.4 | State provide standardized software. | Forward to Synthesis Group – No Short term, Not recommended | | Cost-Effective Ease of Use/Flexibility | Increased cost to the Board. May be incompatible with jurisdictions' software so would be a change in operation. |
| DRS-AL-2.5 | Establish a statewide tipping fee. | Forward to Synthesis Group – No Long term, Not recommended | | Enforceable | Would require regulatory or statutory change. Increased revenue for Board to provide more assistance to jurisdictions. |
| DRS-AL-2.6 | State provide grants to counties to for standardized disposal reporting software and training. | Forward to Synthesis Group – No Long term, High priority | | Verifiable Cost-effective | Would require regulatory or statutory change. Increased cost to the Board. Would provide more consistency in disposal reporting. May result in greater accuracy of disposal amounts. Would require change in operating practices for jurisdictions with existing systems that are incompatible with the standardized software. |
| DRS-AL-2.8 | County ordinance requiring commercial hauler accounts to reconcile origin of jurisdiction monthly, misallocation punishable by law | Forward to Synthesis Group – No Long term, High priority | | Increase Accuracy Verifiable Enforceable | Increased cost to jurisdictions. May be difficult or costly to enforce. More local authority. Jurisdictions can do this now. |
| DRS-AL-3.1 | Implement Board-approved alternative reporting system to survey in a different week. | Forward to Synthesis Group – No Short term, Not recommended | Major waste generating events that occur during the survey week skew disposal numbers. | Increase Accuracy Verifiable | No change in regulation or statute needed. Jurisdictions currently can ask for a different reporting week from the Board that more accurately reflects waste disposal trends. Few counties have asked for alternative survey weeks. |
| DRS-AL-4.1 | Establish local fee/business license program for waste haulers. | Forward to Synthesis Group – No Short term, Low priority | There are no standards or guidelines for collection of origin data. | Increase Accuracy Verifiable Enforceable | Would not require regulatory or statutory change. Increased cost for haulers and jurisdictions. Jurisdictions would be better able to verify origin information. Greater local control over haulers. |

| Ref # | Solution Considered | Working Group Recommendation | Issue Addressed | Criteria Met/Considerations | Additional Staff Comments |
|------------|---|---|-----------------|--|--|
| DRS-AL-4.4 | Establish a manifest system to track solid waste from "cradle to grave" | Forward to Synthesis Group - No Long term, Not recommended | | Increase Accuracy Verifiable Enforceable | Would require regulatory and statutory change. Burdensome for jurisdictions to track all loads through a manifest. Increased cost to jurisdictions. Level of effort to implement and monitor could be greater than the benefit of more accurate disposal date. |