



DAWSON

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INTRODUCTIONS

DAWSON SOLUTIONS (DAWSON)

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RI TRUCK COUNT AND ASSESSMENT STUDY

The U.S. Environmental Protection Agency (EPA), Region 1 planned a two-phase Truck Count and Assessment study for the Providence Port Area of Rhode Island (RI).

- Phase I - Develop an inventory of medium and heavy-duty freight trucks (Class 5-8) and the activity they engage in while serving businesses/facilities in the ProvPort area.
- Phase II - Identify potential strategies to reduce air emissions, noise and congestion from heavy-duty trucks and their activity.

RI TRUCK COUNT AND ASSESSMENT STUDY

DATA COLLECTION PROCESS

- Conduct Business Interviews
- Develop Data Collection Plan
- Perform Data Collection
- Develop Database/Conduct Analysis



RI TRUCK COUNT AND ASSESSMENT STUDY

BUSINESSES INTERVIEWED

- Morton Salt
- Lehigh Cement
- Grimaldi Export Car Terminal (Waterson Terminal Services Loading)
- Leed Salt (Waterson Terminal Services Loading)
- Washington Mills (Waterson Terminal Services Loading/Trucking)
- Waterson Terminal Services/ProvPort
- Providence DPW
- Mid-American Salt
- McInnis Cement
- Sea3 Terminal (Blackline Midstream)
- Holcim Cement
- RIDOT
- Global Partners LP
- Sprague Energy (Sprague Terminal)

INTERVIEW RESULTS

- Most businesses interviewed either:
 - Act as a wholesaler and customers bring their own trucks to pick up product (using contracted or owned trucks), or,
 - Contract with private trucking companies to provide transportation and do not own their truck fleets.
- Most businesses in the port area begin operations in the early morning
- COVID-19 has not significantly affected these port businesses in terms of trucking volumes

RI TRUCK COUNT AND ASSESSMENT STUDY

DATA COLLECTION PLAN

- Identified Truck Characteristics, Movement and Behaviors to be observed
 - Physical Attributes of Trucks and Trailers
 - Truck Movements and behaviors
- Data Collection Method
- Observation Locations and Durations



Bulk Trailer



Tanker (Petroleum)

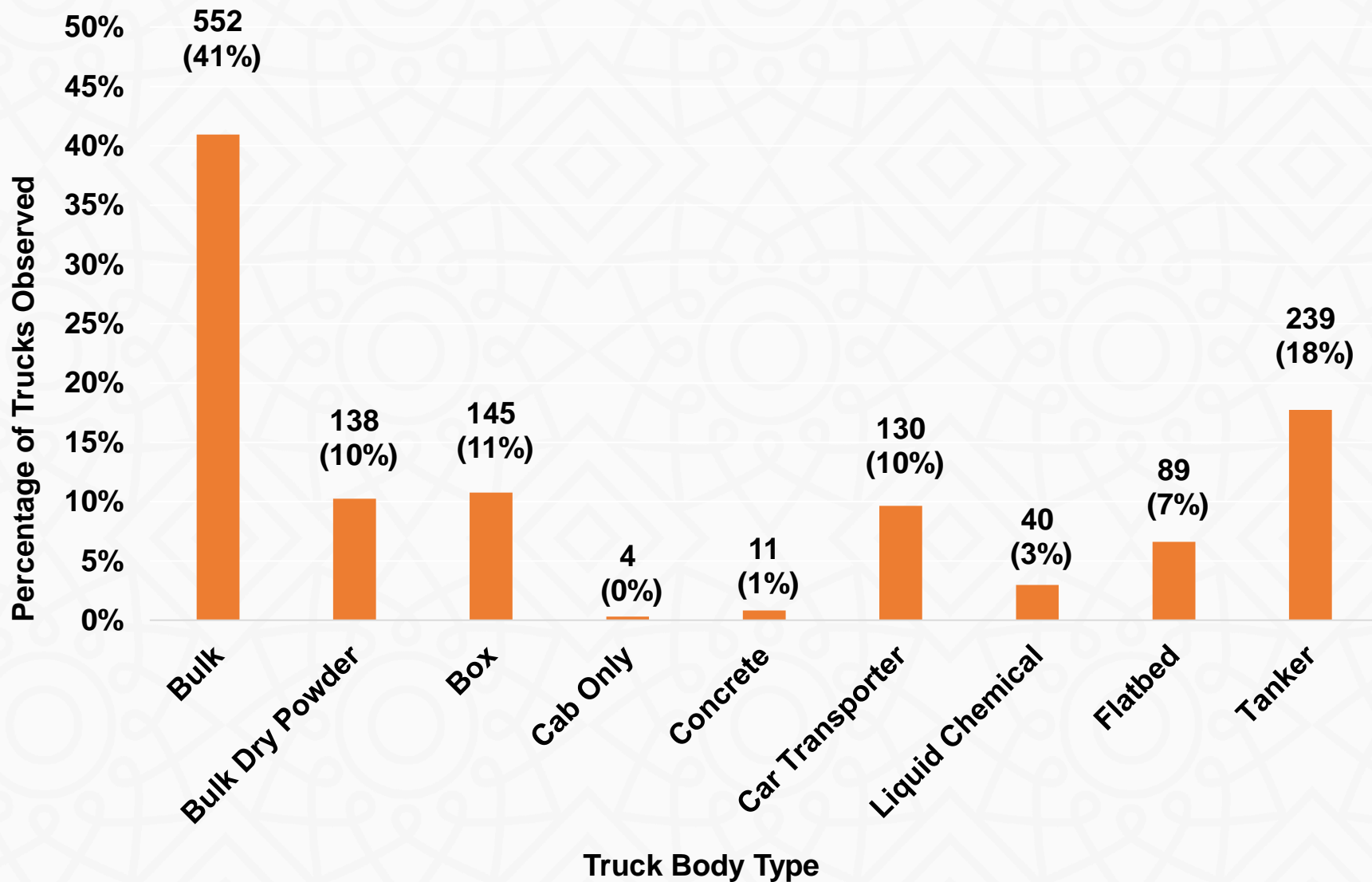
RI TRUCK COUNT AND ASSESSMENT STUDY

OBSERVATION LOCATIONS AND DURATIONS

Location Number	Location	Data to Collect	Length of Observation (hours)
1	Terminal Road in the vicinity of ProvPort Entrance	All Characteristics + Behavior (focus on queueing)	6.5
2	Terminal Road/Ernest Street and Allens Avenue	All Characteristics + Behavior	12.75
3	Eddy Street and Thurbers Avenue	All Characteristics + Behavior	3
4	Sprague Terminal at Allens Avenue	All Characteristics + Behavior (focus on truck routing)	5.25
5	Oxford Street and Allens Avenue	All Characteristics + Behavior (focus on truck routing)	3
6	Thurbers Avenue and Allens Avenue/I-95 On-Ramp	All Characteristics + Behavior	4.75
7	Thurbers Avenue/I-95 SB Ramps	All Characteristics + Behavior (focus on Eddy Street vs. Allens Avenue routes)	3.75
8	Thurbers Avenue/I-95 NB Ramps	All Characteristics + Behavior (focus on Eddy Street vs. Allens Avenue routes)	2.75
9	Public Street and Allens Avenue	All Characteristics + Behavior (focus on truck routing)	4.25
10	Study Area Roadways*	All Characteristics (survey of parked/idling vehicles)	4

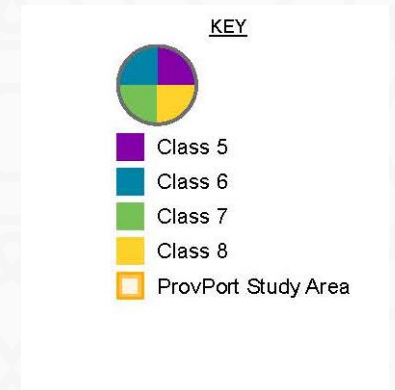
RI TRUCK COUNT AND ASSESSMENT STUDY

SUMMARY OF DATA COLLECTED – COMBINED TRUCK BODY TYPES RECORDED



RI TRUCK COUNT AND ASSESSMENT STUDY

SUMMARY OF DATA COLLECTED – TRUCK CLASSES



ProvPort should read: Port

RI TRUCK COUNT AND ASSESSMENT STUDY

SUMMARY OF DATA COLLECTED - TRUCK VOLUMES/HOUR AT OBSERVATION LOCATIONS



RI TRUCK COUNT AND ASSESSMENT STUDY

TRUCK MOVEMENT PATTERNS – AVERAGE HOURLY TRUCK VOLUMES



ALLENS AVE AND TERMINAL ROAD

- Most trucks access ProvPort from the north, and exit in that direction as well

RI TRUCK COUNT AND ASSESSMENT STUDY

TRUCK MOVEMENT PATTERNS – AVERAGE HOURLY TRUCK VOLUMES



I-95 NB EXIT

- Most trucks at both exits turn east to Allens Ave

I-95 SB EXIT

RI TRUCK COUNT AND ASSESSMENT STUDY

TRUCK MOVEMENT PATTERNS – AVERAGE HOURLY TRUCK VOLUMES



ALLENS AVE AND THURBERS AVE

- Most trucks exiting I-95 at this location travel towards ProvPort (south)
- NB I-95 On-Ramp is predominantly used by traffic from the south

RI TRUCK COUNT AND ASSESSMENT STUDY

TRUCK MOVEMENT PATTERNS – AVERAGE HOURLY TRUCK VOLUMES



EDDY ST AND THURBERS AVE

- Slightly more trucks access I-95 via Eddy St from the north as opposed to the south
- Trucks bound for I-95 travel via Eddy St both from Ernest St and south as well as Public St and north.

RI TRUCK COUNT AND ASSESSMENT STUDY

TRUCKS BY TRUCK FLEET SIZE OBSERVED IN STUDY AREA

- USDOT Number matched against the USDOT database
- 142 different truck fleets were identified
- Median fleet size was 19 trucks, and more than half owned by an owner with fewer than 50 trucks in their fleet.

Truck Fleet Size	# of Owners Recorded in Study Area	% of Owners Recorded in Study Area	Total Trucks Recorded in Study Area	% of Trucks Recorded in Study Area
1	17	12%	19	6%
2-10	40	28%	68	20%
11-24	21	15%	41	12%
25-49	14	10%	71	21%
50-99	14	10%	35	10%
100-500	16	11%	54	16%
500+	20	14%	48	14%
Total	142	100%	336	100%

RI TRUCK COUNT AND ASSESSMENT STUDY

TRUCK OWNERSHIP – TOP OWNERS OBSERVED

Owner	City	State	Trucks Recorded in Study Area	Fleet Size
Wesco Oil Inc	Smithfield	RI	38	46
Univar Solutions USA Inc	Downers Grove	IL	21	1137
J P Noonan Transportation Inc	West Bridgewater	MA	17	176
Cumberland Farms Inc	Westboro	MA	14	122
B & B Trucking Corp	Rehoboth	MA	14	16
Narragansett Improvement Company	Providence	RI	8	3
Metals Recycling LLC	Johnston	RI	7	10
J E P Inc	West Bridgewater	MA	7	75
S C Ballard LLC	North Branford	CT	6	43
North American Bulk Transport Inc	Milwaukee	WI	6	99

RI TRUCK COUNT AND ASSESSMENT STUDY

CONCLUSIONS AND NEXT STEPS

- Bulk Carriers (Bulk Dry Powder, Bulk Trailers, and Dump trucks) and fuel tankers constituted the majority of trucks observed
- Class 7 and 8 trucks were the majority of trucks recorded in the study area
- Trucking in the study area is conducted by a wide range of companies, often contracted by port businesses.
- USDOT Number database can act as a starting point for understanding truck fleet ownership traits and reaching out to owners for interviews

RI TRUCK COUNT AND ASSESSMENT STUDY

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Questions?