

Level-of-Service – Capacity

Capacity is the measure of a station's ability to accommodate the flow of both commercial and self-haul vehicles and tonnage. There is very little existing literature on how to quantify the capacity of a solid waste facility. The standard used in the 2006 Transfer System Plan was developed using transportation industry standards of measurement for capacity of roadways and intersections – called a level of service or LOS measurement. An LOS measurement is a qualitative measure based on quantitative data. For the 2006 Plan consultants were retained to refine methodology and to apply them to the transfer stations; for this analysis the division applied the methodology.

The methodology for rating actual vehicle and tonnage capacity was developed by determining each station's maximum sustainable operating capacity. Optimal operating capacity is defined as the maximum optimal number of vehicles or tonnage that can be processed through the station each hour based on the station design and customer mix.

The standard chosen for vehicle capacity is an LOS score of C (on a scale of A to F), which is defined as a steady flow of vehicles except during occasional peak periods. The LOS measurements are defined as follows:

- LOS A – Can easily accommodate vehicles/tonnage at all times of the day (optimal operating capacity exceeded <0.5% of operating hours).
- LOS B – Able to accommodate vehicles/tonnage at most times of the day (optimal operating capacity exceeded between 0.5% - 5% of operating hours).
- LOS C – Able to accommodate vehicles/tonnage all times of the day, except for occasional peak hour times (optimal operating capacity exceeded 5% - 10% of operating hours).
- LOS D – Beginning to have difficulty accommodating all vehicles/tonnage during peak hours (optimal operating capacity exceeded 10%-20% of operating hours).
- LOS E – Cannot accommodate vehicles/tonnage without off-site impacts or overloading on-site resources (optimal operating capacity exceeded 20 - 50% of operating hours).
- LOS F – Cannot accommodate vehicles/tonnage throughput without off-site impacts and overloading of on-site resources. Capacity exceeded most hours (optimal operating capacity exceeded >50% of operating hours).

Vehicle Capacity

Current 7/1/2012 – 6/30/2013

	Factoria	Houghton	Renton	Algona	Bow Lake	Shoreline
weekday	B	D	A	D	A	A
weekend	C	D	C	E	A	A
overall	B	D	B	E	A	A
	Yes	No	Yes	No	Yes	Yes

Vehicle Capacity – Commercial

Base	2027				
	Factoria	NERTS	SCRTS	Bow Lake	Shoreline
	A	A	A	A	A
	Yes	Yes	Yes	Yes	Yes

Base	2040				
	Factoria	NERTS	SCRTS	Bow Lake	Shoreline
	A	A	A	A	A
	Yes	Yes	Yes	Yes	Yes

Vehicle Capacity – Self-haul

Base	2027				
	Factoria	NERTS	SCRTS	Bow Lake	Shoreline
	D	B	B	A	A
weekend	C	B	C	D	B
overall	C	B	B	B	A
	Yes	Yes	Yes	Yes	Yes

Base	2040				
	Factoria	NERTS	SCRTS	Bow Lake	Shoreline
	A	B	C	A	A
weekend	A	C	D	E	B
overall	A	C	C	B	A
	Yes	Yes	Yes	Yes	Yes

Vehicle Capacity – Commercial

A

2027			
Factoria	SCRTS	Bow Lake	Shoreline
B	A	A	A
Yes	Yes	Yes	Yes

2040			
Factoria	SCRTS	Bow Lake	Shoreline
B	A	A	A
Yes	Yes	Yes	Yes

A*

2027			
Factoria	SCRTS	Bow Lake	Shoreline
A	A	A	A
Yes	Yes	Yes	Yes

2040			
Factoria	SCRTS	Bow Lake	Shoreline
A	A	A	A
Yes	Yes	Yes	Yes

Vehicle Capacity – Self-haul

A

2027				
	Factoria	SCRTS	Bow Lake	Shoreline
weekday	A	B	A	B
weekend	D	D	D	C
overall	C	C	B	B
	Yes	Yes	Yes	Yes

A

2040				
	Factoria	SCRTS	Bow Lake	Shoreline
weekday	B	C	A	B
weekend	B	D	E	D
overall	B	C	B	B
	Yes	Yes	Yes	Yes

A*

2027					
	Factoria	SCRTS	Bow Lake	Shoreline	Houghton
weekday		B	A	B	F
weekend	E	D	D	C	F
overall	E	C	B	B	F
	No	Yes	Yes	Yes	No

A*

2040					
	Factoria	SCRTS	Bow Lake	Shoreline	Houghton
weekday		C	A	B	F
weekend	E	D	E	D	F
overall	E	C	B	B	F
	No	Yes	Yes	Yes	No

Vehicle Capacity – Commercial

2027

B	NERTS	SCRTS	Bow Lake	Shoreline
	A	A	A	A
	Yes	Yes	Yes	Yes

2040

	NERTS	SCRTS	Bow Lake	Shoreline
	A	A	B	A
	Yes	Yes	Yes	Yes

2027

C	NERTS	Bow Lake	Shoreline
	A	B	A
	Yes	Yes	Yes

2040

	NERTS	Bow Lake	Shoreline
	A	B	A
	Yes	Yes	Yes

Vehicle Capacity – Self-haul

2027

B	NERTS	SCRTS	Bow Lake	Shoreline
weekday	B	B	A	A
weekend	D	C	E	B
overall	C	B	B	A
	Yes	Yes	Yes	Yes

2040

B	NERTS	SCRTS	Bow Lake	Shoreline
weekday	A	C	A	A
weekend	B	D	E	B
overall	B	C	C	A
	Yes	Yes	Yes	Yes

2027

C	NERTS	Bow Lake	Shoreline
weekday	B	B	A
weekend	D	F	B
overall	C	D	A
	Yes	No	Yes

2040

C	NERTS	Bow Lake	Shoreline
weekday	A	C	A
weekend	B	F	B
overall	B	D	A
	Yes	No	Yes

Vehicle Capacity – Commercial

2027

C**	NERTS	Bow Lake	Shoreline
	A	B	A
	Yes	Yes	Yes

2040

	NERTS	Bow Lake	Shoreline
	A	B	A
	Yes	Yes	Yes

2027

D	Factoria	Bow Lake	Shoreline
	A	B	A
	Yes	Yes	Yes

2040

	Factoria	Bow Lake	Shoreline
	A	B	A
	Yes	Yes	Yes

Vehicle Capacity – Self-haul

2027

C**	NERTS	Bow Lake	Shoreline	Algona
weekday	B	B	A	E
weekend	D	F	B	F
overall	C	C	A	E
	Yes	Yes	Yes	No

2040

C**	NERTS	Bow Lake	Shoreline	Algona
weekday	A	B	A	E
weekend	B	F	B	F
overall	B	D	A	E
	Yes	No	Yes	No

2027

D	Factoria	Bow Lake	Shoreline
weekday	A	B	B
weekend	C	F	D
overall	B	D	C
	Yes	No	Yes

2040

D	Factoria	Bow Lake	Shoreline
weekday	A	B	B
weekend	A	F	D
overall	A	D	C
	Yes	No	Yes

Vehicle Capacity – Commercial

D**

2027		
Factoria	Bow Lake	Shoreline
A	B	A
Yes	Yes	Yes

2040		
Factoria	Bow Lake	Shoreline
A	B	A
Yes	Yes	Yes

D***

2027		
Factoria	Bow Lake	Shoreline
A	B	A
Yes	Yes	Yes

2040		
Factoria	Bow Lake	Shoreline
A	B	A
Yes	Yes	Yes

Vehicle Capacity – Self-haul

D**

2027				
	Factoria	Bow Lake	Shoreline	Algona
weekday	A	B	B	E
weekend	C	E	D	F
overall	B	C	C	E
	Yes	Yes	Yes	No

D**

2040				
	Factoria	Bow Lake	Shoreline	Algona
weekday	A	B	B	E
weekend	A	F	D	F
overall	A	D	C	E
	Yes	No	Yes	No

D***

2027					
	Factoria	Bow Lake	Shoreline	Algona	Houghton
weekday		B	B	E	F
weekend	E	E	C	F	F
overall	E	C	B	E	F
	No	Yes	Yes	No	No

D***

2040					
	Factoria	Bow Lake	Shoreline	Algona	Houghton
weekday		B	B	E	F
weekend	D	F	D	F	F
overall	D	D	B	E	F
	No	No	Yes	No	No

Tonnage Capacity

Current 7/1/2012 – 6/30/2013

Factoria	Houghton	Renton	Algona	Bow Lake	Shoreline
B	D	A	C	A	A
Yes	No	Yes	Yes	Yes	Yes

Base

2027

Factoria	NERTS	SCRTS	Bow Lake	Shoreline
A	A	A	A	A
Yes	Yes	Yes	Yes	Yes

2040

Factoria	NERTS	SCRTS	Bow Lake	Shoreline
A	A	A	A	A
Yes	Yes	Yes	Yes	Yes

A

2027

Factoria CH	Factoria SH	SCRTS	Bow Lake	Shoreline
B	A	A	A	A
Yes	Yes	Yes	Yes	Yes

2040

Factoria CH	Factoria SH	SCRTS	Bow Lake	Shoreline
A	A	A	A	A
Yes	Yes	Yes	Yes	Yes

A*

2027

Factoria	Houghton	SCRTS	Bow Lake	Shoreline
B	A	A	A	A
Yes	Yes	Yes	Yes	Yes

2040

Factoria	Houghton	SCRTS	Bow Lake	Shoreline
A	A	A	A	A
Yes	Yes	Yes	Yes	Yes

NERTS: Northeast Recycling & Transfer Station
 SCRTS: South County Recycling & Transfer Station

Tonnage Capacity

B

2027

NERTS	SCRTS	Bow Lake	Shoreline
C	A	A	A
Yes	Yes	Yes	Yes

2040

NERTS	SCRTS	Bow Lake	Shoreline
B	A	A	A
Yes	Yes	Yes	Yes

C

2027

NERTS	Bow Lake	Shoreline
C	B	A
Yes	Yes	Yes

2040

NERTS	Bow Lake	Shoreline
B	B	A
Yes	Yes	Yes

C**

2027

NERTS	Bow Lake	Shoreline	Algona
C	B	A	A
Yes	Yes	Yes	Yes

2040

NERTS	Bow Lake	Shoreline	Algona
B	B	A	A
Yes	Yes	Yes	Yes

Tonnage Capacity

D

2027

Factoria CH	Factoria SH	Bow Lake	Shoreline
B	A	B	A
Yes	Yes	Yes	Yes

2040

Factoria CH	Factoria SH	Bow Lake	Shoreline
A	A	B	A
Yes	Yes	Yes	Yes

D***

2027

Factoria	Bow Lake	Shoreline	Algona	Houghton
B	B	A	A	A
Yes	Yes	Yes	Yes	Yes

2040

Factoria	Bow Lake	Shoreline	Algona	Houghton
A	B	A	A	A
Yes	Yes	Yes	Yes	Yes

D**

2027

Factoria CH	Factoria SH	Bow Lake	Shoreline	Algona
B	A	B	A	A
Yes	Yes	Yes	Yes	Yes

2040

Factoria CH	Factoria SH	Bow Lake	Shoreline	Algona
A	A	B	A	A
Yes	Yes	Yes	Yes	Yes