

**SCRAP METAL INDUSTRY ANALYSIS**  
A Forecast of Future Volumes and Regional Capacity

January 2012



Prepared by Business Development Bureau

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## 1 EXECUTIVE SUMMARY

SA Recycling operates two of the three industrial scrap metal shredders in the greater Los Angeles region that are larger than 4,000 horsepower and are able to process heavy industrial scrap, autos, and other heavier items.<sup>1</sup> In addition to the three industrial scrap metal shredding facilities, there are many smaller recycling facilities with shredders that process general scrap metal items. These small facilities can load processed scrap into containers destined for export. SA Recycling exports scrap metal via both containers and bulk vessels. While the ratio between exports through containers and bulk vessels varies widely according to spot market rates, both export methods are anticipated to grow at an annual compounded growth rate of 3.1 percent. Based on this growth forecast, the San Pedro Bay ports need to have an annual bulk throughput capacity of 2.4 million metric tons.

SA Recycling's two San Pedro Bay facilities are the only locations where bulk vessels are loaded with scrap in the region. Combined, the two facilities have a total throughput capacity of 2.5 million metric tons. In order to meet anticipated demand of bulk scrap exports, a new facility capable of handling approximately 1.5 million metric tons of scrap is needed if SA Recycling's lease is not renewed at its current location.

## 2 BACKGROUND

SA Recycling is one of the largest recyclers of ferrous and non-ferrous metals in the region. The company operates more than 50 recycling centers throughout California, Arizona, and Nevada, including the 26.73-acre site on Port of Los Angeles (Port) property on Terminal Island.<sup>2</sup> While exports of scrap metal are somewhat volatile due to the varying international prices for scrap metal, long-term expectations call for an increase as consumers continue to purchase cars, refrigerators, and other large appliances while recycling older models.

As part of the Terminal Island planning process, this report provides a general overview of the scrap metal industry and attempts to forecast the potential regional effect of eliminating one of the industry's largest shredders. SA Recycling's current Port of Los Angeles location at Berths 210-211 separates the YTI container terminal from the Berths 206-209 container terminal. As part of the Terminal Island planning process, Cargo Velocity, Inc. (Cargo Velocity) along with Port staff determined that SA Recycling's current location hinders the potential long-term benefits of a unified container terminal. Container terminal operators continue to request larger facilities to utilize economies of scale, especially considering the significant capital costs associated with constructing a modern container operation. If SA Recycling is relocated to the east or removed from the Port completely, one or potentially two additional berths become available for container operations.

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<sup>1</sup> Ecology Recycling in Colton, CA is the third heavy industrial facility.

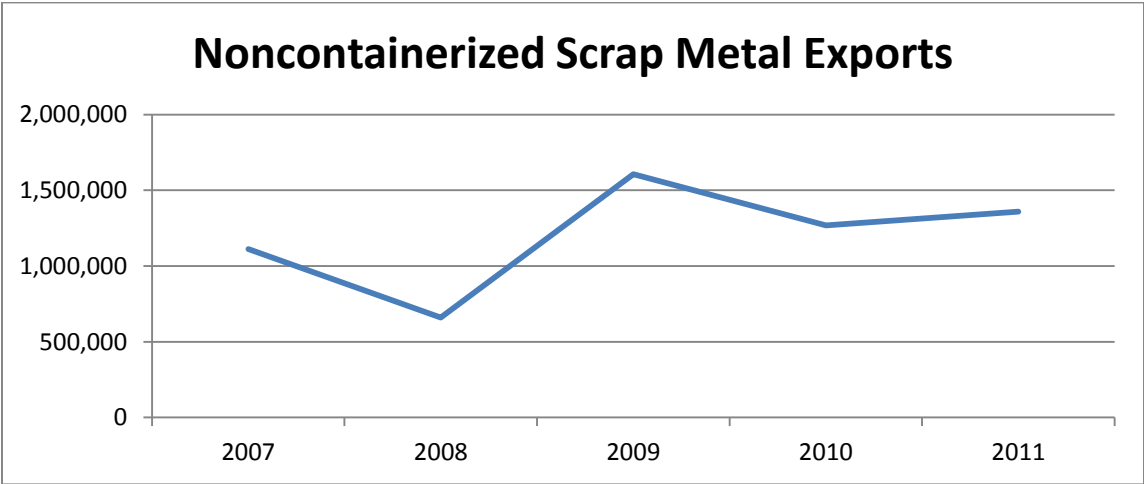
<sup>2</sup> SA Recycling also operates a 17.5 acre facility on Port of Long Beach property on Pier T.

### 3 HISTORICAL VOLUMES<sup>3</sup>

#### 3.1 BULK VESSEL EXPORTS (NONCONTAINERIZED)

SA Recycling accounts for all exports of noncontainerized scrap metal.<sup>4</sup> SA Recycling’s two facilities located in the ports of Los Angeles and Long Beach are the only options for loading bulk vessels with scrap metal. Figure 1 shows total exports of noncontainerized scrap metal are increasing over the past five years. Starting at the end of 2006, container rates for shipping scrap metal became more favorable, and some volumes that would normally be exported via bulk vessels were instead containerized. In 2009, the market corrected itself to a more normal historical pattern of shipping more scrap via bulk vessels rather than containers.

**Figure 1. Yearly Noncontainerized Scrap Metal Exports for San Pedro Bay in Millions of Metric Tons**



SA Recycling has two export facilities, one located at Berths 210-211 in Los Angeles and one located at Berths T118-T119 in Long Beach. The Los Angeles facility has one berth at a length of 400 feet (not including mooring dolphins) and the Long Beach facility has one 880-foot berth. Both berths provide for vessels approximately 600-750 feet long to call at each facility. SA Recycling’s facility in Los Angeles handles larger volumes due to its larger facility footprint and onsite shredder.

<sup>3</sup> Volumes are partial for 2011.

<sup>4</sup> PIERS data indicates some noncontainerized exports from several other companies, but SA Recycling’s acquisitions since 2007 have captured these volumes.

**Table 1. Los Angeles Versus Long Beach Bulk Volumes in Metric Tons**

Facility	2007	2008	2009	2010	2011	Total
Los Angeles (Berths 210-211)	425,073	494,849	1,076,454	720,086	768,999	3,485,461
Long Beach (Berths T118-T119)	687,760	165,008	528,989	549,250	590,965	2,521,972
<b>Total</b>	<b>1,112,833</b>	<b>659,857</b>	<b>1,605,443</b>	<b>1,269,336</b>	<b>1,359,964</b>	<b>6,007,433</b>

Source: Port Wharfingers and SA Recycling data

### 3.2 CONTAINERIZED EXPORTS

Over the past five years, scrap metal was roughly two to three times more likely to be exported via containers than bulk vessels. For example, in 2010, approximately 2.8 million metric tons were exported via containers, compared to 1.4 million via bulk vessels. While this ratio fluctuates year-to-year, exports via bulk vessels are expected to remain viable and competitive. It is unlikely that exports will solely be transported via containers, as bulk handling is actually the preferred method due to the reduced handling required by recycling companies. Additionally, SA Recycling believes the growth rate for bulk exports will be larger than containers due to competitive cargo utilizing export containers.

## 4 FORECAST

In 2007, the Tioga Group, Inc. (Tioga) prepared the San Pedro Bay Cargo Forecast, which included an analysis of scrap metal exports based on demand. Tioga forecasted the growth in scrap loaded into containers to increase from 1.54 million metric tons in 2005 to 3.13 million metric tons in 2030.<sup>5</sup> The compounded annual growth rate for this commodity is 3.1 percent.

SA Recycling loads anywhere from 25-75 percent of its exports into containers. The Tioga report was produced at a time when there was a shortage of chartered bulk vessels, and it was becoming more attractive to load scrap metal into containers than to export via bulk vessels. However, since the Tioga report is based on demand, we can assume the same growth rate for noncontainerized exports of scrap. Whether or not scrap metal is exported via containers or bulk vessels, the demand for exports of this commodity is expected to grow at a 3.1 percent compounded annual growth rate. Using this assumption, the demand for exporting noncontainerized scrap metal is expected to grow from 1.1 million metric tons in 2007, to approximately 2.4 million metric tons in 2030.

**Table 2. Containerized and Bulk Forecast for Scrap Metal**

	Containerized	Bulk
CAGR	3.1%	3.1%
2007 Volumes (Metric Tons)	1.5 Million	1.1 Million
2030 Volumes (Metric Tons)	3.1 Million	2.4 Million

<sup>5</sup> Exhibit 34 of the San Pedro Bay Cargo Forecast, The Tioga Group, Inc., December 2007.

## **5 REGIONAL CAPACITY**

### **5.1 SHREDDING FACILITIES**

SA Recycling has a near monopoly on large scrap metal shredding facilities in the region. The company has two large shredding facilities, one located on Terminal Island and another in Anaheim, California. There is a third large facility in the area, which Ecology Recycling operates in Colton, California. The 9,000 horsepower shredder on Terminal Island is the newest and most powerful shredding facility in the region, with the shredders in Anaheim and Colton being less powerful.

The smaller operators (less than 4,000 horsepower) have been successfully shredding scrap metal and loading containers for export; however, these facilities are hindered by lacking direct access to bulk exports. The main benefit to exporting scrap metal through bulk vessels is the reduced handling cost incurred by the recycling operator.

### **5.2 ON-DOCK FACILITIES**

As described in Section 3.1, SA Recycling has two export facilities in San Pedro Bay. Since 2007, the Long Beach facility has exported 2.5 million metric tons of scrap metal, which is 42 percent of the total San Pedro Bay export volumes (See Table 1). According to SA Recycling, the Los Angeles facility has a maximum capacity of 1.5 million metric tons per year, while the Long Beach facility has a maximum capacity of 1.0 million metric tons for a total regional capacity of 2.5 million metric tons.<sup>6</sup>

## **6 CONCLUSION**

SA Recycling's Los Angeles facility has 60 percent of the region's bulk export capacity. The Tioga forecast anticipates moderate growth for exports of scrap metal, expecting approximately 2.4 million metric tons to be exported via bulk vessels and 3.1 million metric tons to be exported via containers. While scrap metal can be exported via containers or bulk vessels, the operators preferred method is via bulk vessels because it reduces handling costs. In order to accommodate anticipated demand of bulk scrap metal exports, the San Pedro Bay ports need the capacity to handle approximately 2.4 million metric tons. The current combined capacity of bulk scrap metal export facilities is 2.5 million metric tons; therefore, if the current facility at Los Angeles Berths 210-211 is removed, the region would not have enough capacity to meet demand unless a new facility is built.

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<sup>6</sup> The Long Beach facility is approximately 17.2 acres, 9.5 acres smaller than the Los Angeles facility.