Candia’s Metal Recycling Program has produced more than $80,000 extra revenue over 9 years.

By Roland Girard

Candia, like most towns, has scrap metal that they need to dispose of—the good news is that towns get revenues from doing so as metals have value—sometimes more, sometimes less. The easiest way for towns to get rid of their metals is to put them in a dumpster to be hauled away or, like Candia, they let it accumulate in large piles and then have someone come in to pick it up and haul it away. Doing so requires minimal effort by town employees but it also means towns may be missing out on some potential additional revenues.

When Chuck Whitcher was named as the Town’s Recycling Center Manager in 2004, he began the efforts to try and get more revenues from the town’s metal pile. At that time the Town’s recycling center was located at the old site which included an incinerator. He started by collecting all the electrical wires that could be readily salvaged. He also collected some additional non-ferrous metals. Needless to say, managing the recycling center didn’t leave him or his employees much time to really do more. This is where I came in. I had always been a recycling advocate, and with my metals manufacturing background, I always felt more could and should be done to get more value/revenue out of the Town’s metal pile. To his credit, Chuck not only listened to me but encouraged me to become more involved as a volunteer at the recycling center. Being a retiree, and looking for something useful to do, I gladly took him up on his offer and began in 2006 to work at the center one or two days a week. Well, it’s been almost 10 years now and we are still going strong.

Several months ago, Chuck arranged (through NRRA) a invite from Eds Harding III from Harding Metals in Northwood to come down to look at what we were doing and to see if he could help us improve what we were doing especially in the area of sorting and identifying various red and yellow brasses. After showing him around, we asked him if there were other towns doing what we were doing so that we could maybe learn from
them to further improve our efforts. According to Eds, he said he didn’t know of anyone who was doing metal recycling to the extent we were. Chuck and I felt that he was suitably impressed with our efforts. Subsequently, Chuck and I discussed the possibility of finding ways to let others know what Candia was doing in this area as we felt that we had something to offer that others might find useful.

The following provides an overview of what we are doing and some of the lessons we’ve learned along the way.

First of all a bit of background information on Candia is in order. Candia is a small suburban town located about 15 miles east of Manchester. It has a population of about 4,000 people in approximately 1,725 households. It is predominately residential, so most waste comes from households. Chuck estimates that 75% of the households utilize the new recycling center that was built in 2008—the others use a variety of private trash haulers such as Pinard.

CANDIA’S METAL PILE
In 2006, when I first got involved, I didn’t do much more than what Chuck had been doing except to increase efforts to salvage various types of aluminum. Over the years we have expanded our efforts so that we now actively sort and process the following materials:

**NON-FERROUS**

- **Copper** --- (#1 and #2), electrical wiring (3 sub-categories--shop, heavy, and solid), electrical motors (3 sub-categories--clean, some with contamination, and Stainless Steel artesian well pumps), radiators and miscellanies
- **Brasses**---red and yellows (red are a tin/copper alloy and are worth more)
- **Aluminum**--- Old aluminum, extruded, irony (not 100% clean), cast (such as BBQ grills), cast automotive rims, aluminum radiators, aluminum wire

**FERROUS**

- #1 steel (includes heavy cast iron)
- Type 304 Stainless Steel (non magnetic) and regular magnetic Stainless Steel

**OTHER**

- Computer wire
- Catalytic converters
Chuck has kept detailed information on what the results have been---summaries of the Recycling Centers revenue performance (including the extra that we do) are included in every Town Report. I have utilized his data to give you an overall snapshot of what we’ve done in total over the past 9 years:

<table>
<thead>
<tr>
<th>Light iron totals-the big pile (See note 1)</th>
<th>Total tons</th>
<th>Total pounds</th>
<th>Total resulting revenues</th>
<th>Average $/pound</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>668.8</td>
<td>1,337,600</td>
<td>$86,345</td>
<td>$.065</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-ferrous totals (See note 2)</th>
<th>Total tons</th>
<th>Total pounds</th>
<th>Total resulting revenues</th>
<th>Average $/pound</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>71.0</td>
<td>142,000</td>
<td>$70,992</td>
<td>$.50</td>
</tr>
</tbody>
</table>

Note 1: Light iron totals were not available for 2007, 8 and 9

2. Does not include any #1 steel or cast iron totals

This has averaged over the 9 years to about $7,800 per year just for non-ferrous metals. Clearly there is a marked 8 to 1 advantage to further sorting our metal pile (.50/lb average versus .065/lb). If we hadn’t done anything, the town would have forfeited about $62,000 in incremental revenues ($70,992 minus 142,000 pounds X $.065/lb)

SOME THINGS WE’VE LEARNED ALONG THE WAY:

- The Recycling Manager’s role is key. Not only does he/she provide ongoing support and encouragement but there is also some incremental effort required on his/her part to make it succeed.
• While much can be accomplished with existing personnel---it certainly is a plus if a town has volunteers who want to help.

• Knowledge of various metals is very important---the good news is that this can be learned. We continually learn more as we did when Eds Harding from Harding Metals came down to review our program.

• If you can’t do anything else, at least save all the electrical cords and wiring that you can. Equip your people with good metal snips and cut off every wire on all electrical appliances---provide a place for people to place wiring or small metal items. (*NRRA NOTE: Based on December pricing for “shop wire” (cords) is $0.76 per lb. versus light iron / scrap metal @ $.035 - $.04 lb.)*

• A dedicated work area adjacent to the metal pile is necessary. It should include space for storage bins of various types as well as a place to put materials that have been pulled from the big pile and are waiting processing.

• Tools to sort, dismantle and process various articles from a main pile do not have to be anything expensive or complicated---battery operated screwdrivers, big hammers, hacksaws, and the like are all you really need----magnets are a key tool!

• Minimizing material handling is a must. Over the years we have developed various storage bins, fixtures and processing approaches that has saved much time and effort.
EXAMPLE OF STORAGE BIN USED TO STORE CLEAN OLD ALUMINUM—made from a recycled 275 gallon oil tank. Made to be stackable and for fork trucks to be able to easily move it around. Tippable steel bins are also very useful.

While it’s not going to make any town a ton of extra money, we do believe its well worth the effort. If you would like to learn more about what we are doing, contact Chuck Whitcher at [chuck.whitcher@hotmail.com]

NOTE: NRRA wishes to thank Roland for this article and his dedication to recycling! We look forward to more tips from Roland on non-ferrous recycling.