

**Bellarmino Sustainability Club**

# **Trash Separation Reform Proposal**

# Summary

The Bellarmine Sustainability Club is a student-led group that cares about the environment and is committed to making change for a more sustainable future. We meet weekly on Mondays during Community Time. One day, Hugh Mahendroo '25 had an idea for a project to change to better benefit the Bellarmine Community. After learning a lot from attending two summer programs on the environment and how to minimize carbon emissions, Hugh was inspired to make changes on campus by pre-sorting waste before disposal.

## Problem/Background

What is the problem with food waste and inefficient disposal and sorting? How does it contribute to Climate Change?

Inefficient waste disposal methods show strong correlations with water, soil, and air pollution, and harm the efficiency of recycling and reusing waste. EPA estimated that each year, U.S. food loss and waste embodies 170 million metric tons of carbon dioxide equivalent. Contributing to this number clashes with core Bellarmine principles of “men for and with others.”

According to the National Library of Medicine, “It is revealed that landfilling is associated with various environmental pollution problems, namely, (a) underground water pollution due to the leaching of organic, inorganic, and various other substances of concern (SoC) contained in the waste, (b) air pollution due to suspension of particles, (c) odor pollution from the deposition of municipal solid waste (MSW), and (d) even marine pollution from any potential run-offs. Furthermore, health impacts may occur through the pollution of the underground water and the emissions of gases, leading to carcinogenic and non-carcinogenic effects of the exposed population living in their vicinity.” Republic Services Inc. is a solid waste collection company whose services include non-hazardous solid waste collection, waste transfer, waste disposal, recycling, and energy services. The second largest provider of waste disposal in the US after Waste Management Inc.

Republic Industries was created as a waste disposal firm in 1981. In 1995, the company began acquiring auto dealerships and care rental agencies. In 1998, Republic Industries spun off Republic Services as an IPO, and then changed its name to AutoNation

**In February 2022, the California Air Resources Board (CARB) reached a settlement in the amount of \$211,250 with Republic Services, Inc. (Republic) and several companies operating under it (the Companies), for violation of CARB’s air quality regulations.** The Companies include Allied Waste of California, Inc., Allied Waste Transportation, Inc., Bay Leasing Company, Inc., BFI Waste Systems of North America, LLC, Browning-Ferris Industries of California, Inc., Consolidated Disposal Service, L.L.C., Delta Container Corporation, Golden Bear Transfer Services, Inc., Independent Trucking Company, International Disposal Corp. of California, N Leasing Company, LLC, Rainbow Disposal Co., Inc., Ramona Landfill, Inc., Solano Garbage Company, Sunrise Sanitation Service, Inc., Tayman Industries, Inc., and West Contra Costa Sanitary Landfill, Inc. **An investigation by CARB showed that the Companies had failed to: (1) properly self-inspect their diesel trucks, as required by the PSIP; (2) bring their trucks into compliance as outlined in the Truck and Bus (TB) Regulation; (3) bring their trucks into compliance by the deadlines set for in the Solid Waste Collection Vehicles and Heavy Crane Regulation, and (5) report changes to**

## Vision

Our vision is simple. We want to fulfill the "Go Green" message across Bellarmine campus through this project, and by doing so, we effectively reduce the carbon footprint of Bellarmine. By removing all the pollution that ravages our campus, from trash underneath the bridge between the track and soccer field to scraps of food near O'Donnell, we not only make our campus safer, but also make it cleaner and more appealing. We will also expect great employee and faculty satisfaction, such as with Mr. Ron Miller and other faculty members that will be greatly overjoyed by a better processing of school waste under this program.

## Benefits

By implementing this program, massive benefits await::

For starters, we not only allow for an efficient waste disposal system, but even more importantly...

Our campus is cleaner! The potential speaks for itself.

There is less time needed to sort trash, 98% of recyclable materials will be recycled, 98% of food waste will end up getting composted, more recyclables get recycled which is better for environment in general. Most importantly however, is that this fits into Bellarmine's Go Green initiative and our school's goal of having "men for and with others."

Also, Bellarmine is a green ribbon school and Ron Miller (the CFO) as well as many other important members of the school administration are passionate about our sustainable initiatives, so by adding recycling bins to campus, we can continue working toward building a reputation as a Sustainability-passionate school.

Finally, to Republic, Bellarmine sorting recyclables and trash cuts out the "middleman", so Republic no longer has to independently sort recyclables and trash. This will save the company money, in the long run.

Here are some specific benefits the system will have, according to the U.S. Environmental Protection Agency (EPA), a waste source separation system has the following benefits:

1. "Best use of materials: Effective source separation supports the highest and best use of materials and cleaner feedstock for producing recycled materials because there is less contamination.
2. Increased diversion from composting: Compostable materials are heavy, high volume materials. Compost provides valuable local agriculture and landscaping soil amendment and reduces greenhouse gas emissions.
3. Higher recycling revenues: Source separated recyclables historically provide the cleanest materials with the highest revenues when sold.
4. Community education: Source separation raises awareness, leading some generators to think about reducing waste and adjusting buying and use practices."

## **Success Criteria**

Effective disposal of waste that helps reduce our contribution to landfills. This will be a successful implementation if every trash bin in Bellarmine also has a recycling and compost section in it. Students will effectively use the bins, making sure to properly dispose of waste in the correct categories. Students will be aware of the impacts of their actions and monitors, at least for the first few weeks of implementation, may be placed at the bins to assure proper disposal.

## **Execution**

### **Deadlines/Plan/Approach**

#### **Approach:**

The Bellarmine Sustainability Club will get bin dividers that fit our current bins and are divided into three sections. These sections include trash, compost, and recycling. These will be installed into trash bins everywhere across campus to pre-sort more efficiently. The Bellarmine Sustainability Club will label each bin and have them color coded, so everyone knows which bin is which.

#### **Implementation plan:**

We aim to receive 200 dollars to fund our project. This will all be used to purchase the bin dividers and that is the only cost required. After that, the Bellarmine Sustainability club will personally alter each existing trash bin into three. This will be done outside of regular school hours as to not disrupt local student activity.

#### **How will students become aware of the new waste disposal system?**

Once this project is approved and completed, an announcement will go out in the following week's WGOTW, posters on old trash cans will show which trash cans will be changed out.

#### **How will proper disposal of waste be enforced?**

We predict that the transition to the new bins may have bumps, so Sustainability Club members will be stationed near bins to enforce proper disposal for the first few weeks.

## **Cost/Budget**

**How many trash cans are there and how much does a divider + sign cost per. Then multiply.**

Our (the Bellarmine Sustainability Club) objective is to minimize the transition cost and ensure that price will not be a factor in deciding whether to add recycling bins to Bellarmine's campus. However, there is still one major cost: the recycling and composting bins. We aim to use already existing trash cans on campus and transform them into recycling, trash, and compost bins by dividing them into three sections. We will do this by purchasing dividers that can be easily placed into the bins. These dividers must have signs that indicate the compost, recycling, and trash portions of the bins.

In application and enforcement, the Bellarmine Sustainability Club and its members volunteer to put in the dividers and, for at least one month, stand by the newly transformed bins to ensure that students are using them properly. Therefore, there is no cost for transforming the bins and ensuring that students use them properly.