

# The Denver Waldorf School

## Waste Diversion Plan

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## **INTRODUCTION**

### **Sustainability at DWS**

Waldorf education is considered a worldwide social renewal movement with environmental stewardship woven throughout its main tenets and, as such, The Denver Waldorf School (DWS) proudly considers environmental sustainability a key piece of expressing the school's mission and vision. The Denver Waldorf School's commitment to a right relationship with the earth can be seen in the adoption of an Environmental Stewardship Statement for the school in the spring of 2015. Waste diversion and energy use were chosen as near term focus areas upon the adoption of the Environmental Stewardship Statement. In addition, the creation of a Sustainability Task Force and the waste diversion plan are steps toward meeting the school's interest in efficient and effective waste diversion and beyond.

### **Why Waste Diversion Matters**

According to the U.S. Environmental Protection Agency, Americans produce millions of tons of waste in our homes and communities annually ([epa.gov/waste](http://epa.gov/waste)). For the purposes of this plan, waste diversion is defined as the prevention and reduction of generated waste through source reduction, recycling, reuse, or composting. Waste diversion has many benefits, including: the prevention of pollution by reducing the need to manufacture new products using virgin materials, energy saved in the transport and landfilling of materials, and reduced greenhouse gas emissions which contribute to climate change.

### **Beyond Waste Diversion**

The Denver Waldorf School recognizes that sustainable waste management is more than just the diversion of waste from the landfill. To fully address the school's use of resources, DWS will need to examine the manufacturing, purchasing, reuse, recycling and composting of all the materials we use, with safe disposal as a last resort. This means, in time, the school will focus not only on diverting waste in the school at the end of its life cycle from landfills (via recycling and composting), but will focus on sustainable materials management across the full life cycle of the materials we purchase, use and dispose of. Examples of future potential sustainable materials management projects for the

school, include, but are not limited to; a 'waste free lunch' challenge, examination of items procured by the school to ensure we are using and reusing materials in a sustainable way and creating additional opportunities for our school community to reuse or recycle less thought of types of waste (e.g. textiles and electronics).

## **BACKGROUND**

### **Waste Diversion at DWS:**

The Denver Waldorf School has maintained a recycling program for many years as the main pillar of its waste diversion scheme. Upon moving into the 2100 S. Pennsylvania St. address in the summer 2014, DWS (per the interest and effort of the Peace Group high school club) began offering a compost diversion option on the high school side of the school in the fall of 2014. In the winter of 2014, it was decided that composting should be considered for integration into the school wide waste diversion program.

### **March 2015 Waste Audit:**

A waste audit occurred in March 2015 with the intention to clarify the school's diversion rate, find the school's potential diversion rate, examine common current errors in diversion and consider diversion by area (administrative, bathrooms, kindergarten/preschool, lower school and high school). The waste audit was a 'snapshot' of the school's waste on a typical day and the data gathered will be used to create the expanded, comprehensive Waste Diversion Plan described in this document. Key waste audit highlights include:

- 182 pounds of waste were sorted
- As of March 2015, our waste diversion rate is **59%**
- Our potential waste diversion rate, with expanded composting, is **82%+**
- **Increasing access to, and use of, composting as an additional waste diversion option is the primary way to increase the school's diversion rate.**

## **Previous Waste Diversion Plan:**

The Denver Waldorf School utilizes recycling, composting and landfill waste disposal services through Alpine Waste. Three large roll off dumpsters are located on the west side of the school for each waste type. Recycling, composting and landfill waste disposal options were available for the entire school, however, the full waste diversion options were most easily accessed in the high school area. There were multiple signage types indicating recycling, compost and landfill waste and there was little signage indicating what type of waste goes where (e.g. what is recyclable, what is compostable and what is landfill trash). The various grades (lower, middle and high school) managed their waste in a manner chosen by their main lesson teacher (typically consisting of management of landfill and recycling bins in the classroom, emptied at the roll off dumpsters by students). Some classroom teachers (specifically grade 4 and the early childhood programs) participated in the composting opportunity provided on the high school side of the school.

**Areas for Improvement:** Upon review of the recommendations from the 2015 waste audit, the following areas were considered during the re-visioning of the DWS waste diversion plan:

- **Signage:** Create more contiguous signage regarding waste diversion options.
- **Sorting Stations:** Add more centrally, located waste sorting stations with compost, recycling and landfill options.
- **Help People 'Own' Their Waste:** Expand opportunities to choose to recycle or compost. Limit stand alone, landfill trash locations.
- **Inside Sorting:** Have students sort waste into indoor waste sorting stations versus outside trips to rolls offs/carts.
- **Review Recycling (Pedro's Planet):** Review use of Pedro's Planet in addition to payment for Alpine Waste for recycling.
- **Better Recyclables Cleaning:** Communicate to community the importance for a quick rinse of recyclables as ideally recycling bins should remain bin liner free.
- **Liners for Compost Bins:** Liner free compost bins use resources (water, energy, time) as cleaning is required from high moisture content of

organic waste. Dirty compost bins can attract pests and create indoor air quality concerns. Purchase compostable bags for all compost bins.

- **School Wide Communication:** Create communication plan for faculty, staff, students, parent body, and larger community regarding chosen waste diversion plan.
- **Source Reduction:** Consider communication and projects around reducing waste at the source, e.g. waste free lunches, etc... to limit waste coming into school.

### **Waste Diversion Plan:**

In agreement with the recommendations from the 2015 waste audit and in accordance with Building and Grounds Committee review, the DWS waste diversion plan will develop as follows:

### **LOGISTICS:**

- **Additional Waste Sorting Centers:** Waste sorting areas will be expanded from 1 waste sorting center (currently located in the high school) to a total of 6 waste sorting centers located throughout the school:
  - 2 centers: High School Hallways  
*(current wood sorting station + one new sorting station)*
  - 1 center: Kindergarten Hallway
  - 1 center: Lower Grades (1 – 4) Hallway
  - 1 center: Middle School (5 – 8) Hallway
  - 1 center: Gym/Cafeteria Hallway

Additional sorting centers will be purchased when budget allows to better serve all areas of the school.

- **Compostable Bin Liners:** Compostable bin liners will be purchased for all compost bins. Bin liner usage will depend on frequency of custodial emptying and use by students, faculty and staff.
- **Bathroom Waste:** After communication roll out and 'break in' period for use of new waste sorting stations, bathroom waste will be broken into two categories:
  - Large bin in restrooms will be labeled 'paper towels only' and a compostable bin liner will be used in each bin and be emptied by custodial staff as compost.
  - Bathroom bins will be labeled 'paper towel only' to; limit negative association with the term 'compost' used in a bathroom setting and to discourage other, compostable, high moisture waste, such as food, to be placed in bathroom waste bin.
  - A small bin labeled 'landfill' will be provided in each bathroom for landfill waste.
- **Custodial Services:** Ideally custodial services will be expanded to cover the emptying of all waste sorting stations and bathroom waste bins. Until that time, facilities staff will manage emptying of sorting station waste.
- **Limit Stand Alone Bins:** Stand-alone landfill and recycling bins located in central areas will be limited. Location of and removal of stand-alone landfill and recycling bins from central areas is will be done by Sustainability Task Force members for no fee. Faculty, administration and staff will be encouraged to hand in stand-alone bins (especially stand-alone landfill bins).
- **Classroom Sorting:** Teachers will develop (or continue) in-class waste sorting schemes, per teacher set-up, given grade, age and

developmental needs of students. Students will carry sorted waste to indoor sorting station to deposit sorted waste.

- **Communication Materials:** Comprehensive, clear communication regarding how to sort waste will be provided throughout school on and near waste sorting stations.

## COMMUNICATION:

- Post expansion of waste diversion plan, consider convening 'green team'/environmental science clubs (*name TBD*) to serve as ambassadors of school waste diversion plan and other sustainability efforts. The teams will be comprised of volunteers students from across various grades:

**Team Lower Grades:** Volunteer student representatives from grades 1- 4.

**Team Middle School:** Volunteer student representatives from grades 5 – 8.

**Team High School:** Volunteer student representatives from grades high school (grades 9 -12).

- In addition to monthly meetings focusing on various environmental topics, Green Teams/Science Clubs will present information on the importance of waste diversion, our school's waste diversion options, etc...to their peers.
- Green Teams/Science Clubs will meet during school hours to maximize participation. Day and time TBD.
- Green Teams/Science Clubs will serve as conduit for other DWS sustainability messaging and outreach, e.g. sustainability goal setting, fundraising via environmental programs (e.g. red apple school textile recycling, etc..), as well as provide an opportunity for like minded students to share their love of environmental science and protection of our earth with each other and the larger DWS community.
- Green Teams/ Science Clubs will be co-chaired by volunteers.
- Sustainability Task Force will ensure ECE/Kindergarten has comprehensive information on waste diversion scheme upon launch.

### **Next Steps/Recommendations:**

#### Short Term:

- Develop communication plan for 2015/2016 school year: convene green teams/plan for various communication outlets, including; faculty and staff communication and parent communication.

#### Mid Term:

- Consider waste diversion 'extras' for the 2015/2016 school year to highlight commitment to waste diversion, e.g. electronics recycling day, red apple textiles recycling challenge, waste free lunch week, etc...

#### Long Term:

- Examine school procurement and vendor use to further consider sustainable sourcing.
- Consider 'spot check' audit in spring of 2016 to examine diversion rate post waste diversion plan adoption.