

BOSS ARCHIVES

Recycling

how to start a neighborhood recycling center

by Berkeley Ecology Action
3029 Benvenue
Berkeley, Calif. 94705

Printed as a Public Service by: Consumers Cooperative of Berkeley, Inc.
4805 Central Avenue, Richmond, California 94804

If you want another copy of this from us, we would appreciate stamps or donations to help with mailing costs. If you need many copies, you are welcome to reprint this.

Berkeley Ecology Action
from: 3029 Benvenue
Berkeley, California, 94705



We have now been recycling for a year in Berkeley. Since the first word of our center got out, we have been getting requests for information. We printed this pamphlet last fall, and now in April it is time for a revised edition. Recycling has been a surprisingly successful idea, and thousands of people across the nation, in little towns and big cities, see recycling as a way to make their ecological concern a day-to-day reality.

The object of any recycling program should be more than just the reclaiming of a community's waste. We hope that people will be made aware of the practices that created that waste so that they can develop ways of avoiding it in the first place. The act of flattening and presenting a tin can for recycling is not, and should not be just another periodic litter cleanup but should serve as an introduction to an ecological conscience that may directly influence our ability to survive.

FIRST STEPS



In planning a recycling project you need to consider first how long you intend to run it and where you want it to lead. In Berkeley we hope in time to have the city and community operate a large-scale recycling program as a step towards eliminating wasteful consumption. We are not sure what form this might take: right now we seem to be working towards a network of neighborhood recycling centers, possibly to be connected by a city-sponsored collection system. We've shown in Berkeley that tens of thousands of people are willing to clean, deliver, and sort their "garbage" for no financial reward. This response has far surpassed even our expectations, and we hope that the trends of the coming year will show us how to make recycling a city-wide project.

The start of any recycling project involves deciding what to collect and finding buyers for it. The most commonly recycled materials are glass, newspaper, aluminum and tin cans. Of course, your decision on what to take will depend on whether you can get it recycled near you, as well as on your supply of time, labor, and vehicles. One source of buyers is the yellow pages of the phone book; under the headings of glass, paper salvage, and waste disposal, etc. you will find many of the businesses you need, but wherever the markets for used materials exist, you will have to hunt for them. As we learn of buyers in different areas, we will put out information sheets. You can help by letting us know what buyers you have found.

THE OPERATION ITSELF

We have found that to function on any significant scale requires a permanent location, preferably a roomy and accessible one. In our case, people deliver their recyclable materials to us there. In your local situation, you may want to develop a pick-up service instead of a collection depot, but in any case you will need a storage site.

In choosing a location, noise is a major factor. Keep in mind that the smashing of glass and the rattling of cans produces quite a racket. The most probable site would be a parking lot at a store, church or school, or a warehouse or garage. It's helpful to have some indoor area at your center as a shelter from adverse weather and for storing your tools and containers.

We have found that a self service drop-off system generally leaves us with bins of dirty, unsorted, or non-recyclable materials. We also want to be present during collection hours so we can talk to the people who come about the implications of their participation. If you collect recyclables only during the hours you can be there, you will find -- particularly as participation grows -- that you need to mark off separate areas for the different types of materials. Displays showing how to prepare things properly, as well as signs on how to identify and sort them, are vital.

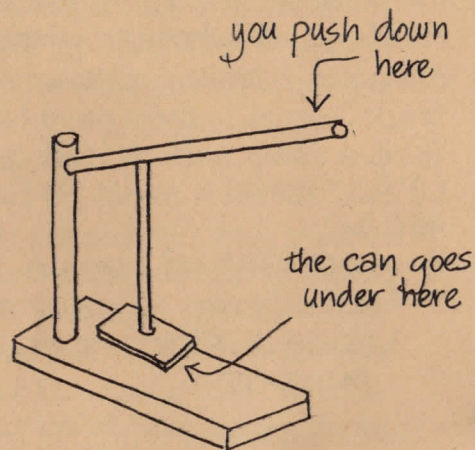
You will find that your main job will be to educate people into doing the necessary preliminary preparation of the materials they bring. (i.e. removing neck rings from bottles, flattening cans, and bundling newspapers.) Items such as tools

for removing neck rings from bottles, string for tying newspapers, and possibly a can-flattening device (see illustration) should be kept handy for those who forgot to do it at home.

You should make sure that every announcement made about your recycling program stresses when you collect recyclables and when you don't! Otherwise you are likely to be left with large amounts of unusable garbage.

Recycling depends on co-operation, but it takes a while for people to learn how to co-operate. And it may take you time to learn how to teach them.

As much thought should be given to storing and transporting materials as to collecting them. You'll need large containers that you can handle, and a truck or trailer to haul the materials to the buyers, unless they can be persuaded to come and get them. If you collect glass, you will need some means of breaking it so it takes up less room. At present we dump the jars and bottles into a 55-gallon oil drum and smash it with an iron plunger, but you may be able to work out an improvement.



ONE OF MANY POSSIBLE
DEVICES YOU CAN BUILD
TO FLATTEN CANS
(ours is metal, but
wood is also good)

Gloves, ear plugs, safety goggles and respirator masks are necessary when you break up glass this way.

Although we could use electrical or fuel-powered machines in flattening and handling the materials, we try to use non-polluting human muscle power whenever possible. To get the barrels of broken glass up onto the flatbed truck, we put them on a barrel dolly and pull it up a ramp with a block-and-tackle pulley. (A "full" barrel is about $\frac{1}{8}$ full and weighs about 450 lbs.)

ONE WAY OF LOADING BARRELS OF GLASS ONTO A TRUCK WITHOUT USING A FORKLIFT OR HYDRAULIC TAILGATE:



WHAT'S RECYCLABLE ?

These pages contain a detailed description of the most commonly recycled materials and the necessary preparation. Try to use a material first as it was originally intended; i.e. cardboard boxes as boxes rather than cardboard. You will find that the people who do home brewing and canning can use many of the glass containers you collect, schools may be able to use the magazines, etc.

PAPER: newspaper is at present the only paper we recycle. People must bundle them, leaving all other grades of paper out. Bundled paper brings us \$5 a ton, but when compressed in a baler it is worth twice that. (Prices in your area may vary.) Newspaper can be de-inked and used again as newsprint, or pulped into egg cartons and other things. We understand that some of the newsprint we collect is shipped to Japan where they apparently have the sense not to cut down their own trees. Only a small percentage of the newsprint made in the U.S. is made from recycled paper. Thus the market for recycled newsprint is small and unstable.

Because of unstable markets, limited time and truck use, we do not recycle the following paper products, though you may be able to do so:

corrugated cardboard and brown paper bags: these can be collected together, being the

same grade of paper, but plastic-coated cardboard, egg cartons, cereal boxes and gray cardboard are not part of this category. In any case, we prefer to encourage people to stop using paper bags: a cloth or net shopping bag is much more durable.)

computer printout: the industries and colleges in your area should be encouraged to resell their own computer paper for recycling. If they are unwilling or unable to do so, you will find that the market price for it is fairly high. You can also recycle it yourself by cutting it to size and using it as mimeo or ditto paper.

mixed scrap paper is saleable, though the price is generally quite low.

magazines that are printed on glossy (clay coated) paper are very difficult to recycle. Buyers may be found, but the price will be quite low. We suggest taking magazines to places where they will be read, such as laundromats, bus stations, schools, hospitals, jails, and waiting rooms.

GLASS: We take regular household glass jars and bottles - green, brown, and clear. All 3 colors sell to glass companies for \$20 a ton. The people who bring their glass containers to our center have already rinsed them out, removed the aluminum rings that come around the necks of some beverage bottles, and have taken off any other metal or

plastic (no jar lids, bottle caps etc. in with the glass). Our buyers say it's okay if the plain paper labels are left on the glass, and some buyers in our area let us mix clear glass with the green or brown, but the specific standards in your area may be different.

Crushed, this glass is called cullet, and it is melted and substituted for sand in the making of new glass. People often bring us deposit bottles (to return or smash), but since the deposit bottle is the most sensible container, we urge them to return the bottles to the store: they need the practice, and the stores need encouragement to continue and increase their use of deposit containers.

CANS: At present we take the three most common types of can - tin, aluminum, and bi-metal. tin cans are really tin plated steel. Most ordinary food cans are of this type: you have to use a can opener on them. Some come with paper labels (which people must remove) but the painted-on labels can stay on. To save space, because our storage boxes are limited, we have people flatten cans before bringing them to us. (If you remove both ends, they're very easy to flatten by stepping on.)

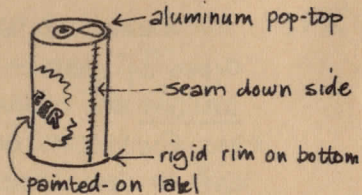
We can also accept in this category band-aid boxes, metal tape dispensers (minus the plastic) and any jar lids that do not have plastic, rubber, or cardboard inside them. We sell this "tin" for \$22 a ton.

Unfortunately, most recycled tin cans

don't get remade into other tin cans. Some of the tin is used for stannous fluoride toothpaste, but most of the metal from these cans gets reused only once — in steel or copper making — and the ferrous sulfate left from this process is a totally useless muck that blights the areas where it is discarded. Perhaps, if you are lucky, there will be a "rolling mill" in your area that can make the old tin cans into new ones.

bi-metal: these are beverage cans that have tin sides and bottoms, and aluminum pop-tops. They have a seam down the side, and the bottom looks like a tin can bottom.

Since the ends are not easily removed for crushing, a can flattener is useful for dealing with this type of can.



THE BI-METAL CAN

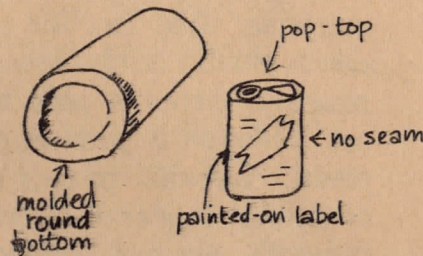
As bi-metal, the material in these cans is even more ⁱⁿefficiently re-used than tin. We receive only \$10 a ton for it. You can avoid a little of the waste if you can get the top off (treat it as aluminum and the rest as tin), but even then, these cans are much more wasteful than glass, and we discourage their purchase.

aluminum: we recycle in this category all-aluminum cans (lightweight, with molded round bottoms and no seams) along with aluminum foil, T.V. dinner

trays, pop-top pull tabs, film cans, and the neck rings and tops from some beverage bottles. They can all be easily flattened by hand or foot. (Our buyers don't let us include any other grades of aluminum — like ice-cube trays — with these items.)

This aluminum is worth \$200 a ton and is melted down for new aluminum containers. Since, once disposed of, it takes about 200 years to decay, it's that much more necessary to make

ALUMINUM CAN



sure that aluminum gets recycled, but it's still a less sensible container than a refillable bottle or jar.

You may have people wanting to bring you spray cans, coat hangers, cans with non-removable plastic spouts and other scrap metals. We don't take any of them, though you may be able to find buyers in your area. Likewise, we aren't recycling used rubber, or rags, though we hear there are markets for them in some places.

Recently, some of the major can companies have started publicity campaigns to convince people to buy more cans, since they claim to be recycling them all. However, they aren't recycling spray cans at all, and we've already mentioned the inefficiency of their tin 'recycling process' so, we wouldn't be too impressed with their ecological claims.

Beyond spray cans, there are many common materials that are not practicably recyclable, of which plastic is the grossest example. Plastic recycling methods have been developed, but are not commonly available, so vast amounts of plastic continue to end up as useless landfill or deadly incinerator fumes. Non-recyclable materials are best avoided in the first place.

THE NEED FOR COMMUNITY INVOLVEMENT

We feel that it is vitally important to obtain the widest possible community support and participation for any recycling program. If you are starting as an individual, contact scouting groups and church youth organizations. Civic leagues, biology and ecology clubs may also be interested in participating. The sale of recyclable goods can be a source of income for community-oriented groups. You may also try to interest local city and county governments in assisting you, but keep in mind that many, if not most officials are also businessmen who often think about short-term profit rather than long-range community benefit. This is true especially on environmental issues. We must remind them that

fertile, healthy soil, pure air, and clean water are not fringe benefits to be begged for, but everybody's inalienable rights.

WHY RECYCLE ?

The recycling of the products of our current wasteful culture is not an end in itself. If we are ever to stop the destruction of the environment that supports us, we will have to take a new look at our day-to-day living habits -- and then change them. Recycling our present "garbage" is just a step towards seeking new ways of life that keep us in harmony with nature. Most of the materials that we are recycling need not and should not have been produced in the first place! Already the United States, which is only 6% of the world's population, annually consumes over 50% of the planet's non-renewable resources, polluting the earth with most of them when finished. People should not be encouraged to feel that their use of no-deposit bottles (for instance) is justified by bringing them to be recycled. Admittedly, recycling resources is better than dumping or burning them, but smashing and melting down old containers into new ones takes an enormous amount of fuel energy -- and America is already using more than its share.

We are often asked why we prefer to use human labor to deal with waste problems, rather than the technology that is available. Power plants can be built to run machines that can sort our garbage, but we will all suffer from the pollution they cause, and pay the taxes to clean it up, and most significantly, we will be encouraged to continue our overconsumption in order to justify the investment in the machines. Clearly, the scope of the problems facing us call for the creation of new economies, not the perpetuation of the old ones.

A recycling project, as we see it, should be a means of helping people learn to reduce their impact on the planet and to assert their collective influence on production. Here are a few steps in that direction:

(1) research and construct displays for your center that show the waste of resources under our present "throwaway" economic system.

(2) circulate petitions urging environmental legislation, such as banning non-returnable containers. Organize letter-writing campaigns and boycotts of wasteful and wastefully-packaged products

(3) show people how to compost their organic wastes. (We can send you a basic how-to-compost leaflet.)

(4) encourage local stores to sell products only in returnable containers, and provide consumers with names of those who do.

(5) make space at your center for other groups to set up literature tables and exhibits.

A recycling project often gets people thinking about other ecologically constructive activities such as carpools, neighborhood co-operative parks and gardens, food buying co-operatives and local labor/resource exchanges. For more information on the latter two, you can write to People's Architecture, 1940 B Bonita, Berkeley.)

We think you will find, as we have, that many people are looking for ways to involve themselves in keeping the planet alive. Of course some communities will need more encouragement than others, and your group, however active, will find that it cannot do all the environmental rescue that needs doing. It's a big job to change destructive habits, but we have been pleased by the success of our project and, however slowly, people (and even some industries!) are responding with change, as grass-roots activities build public opinion. We base our work on the belief that people, given the facts, will take the steps necessary to change a situation in which man himself has become an endangered species.