

Zero Waste Commission Regular Meeting

Monday, October 28, 2019, 7:00 p.m.
City of Berkeley Corporation Yard (Ratcliff Building, Willow Room)
1326 Allston Way, Berkeley

Meeting Agenda

PRELIMINARY MATTERS (30 Minutes):

- 7:00 p.m. Call to Order
Chair will call the meeting to order; Secretary will call roll.
- Christienne de Tournay (Chair)**, appointed by CM Sophie Hahn, District 5
Alfred Twu (Vice Chair), appointed by former CM Kris Worthington, District 7
Annette Poliwka, appointed by Mayor Jesse Arreguin
Ilana Golin, appointed by CM Rashi Kesarwani, District 1
VACANT, appointed by CM Cheryl Davila, District 2
Antoinette Stein, appointed by CM Ben Bartlett, District 3
Margo Schueler, appointed by CM Kate Harrison, District 4
Jennifer Lombardi, appointed by CM Susan Wengraf, District 6
David Grubb, appointed by CM Lori Droste, District 8
- 7:05 p.m. Approve Meeting Agenda
- 7:10 p.m. Public Comment
Speakers are generally allotted up to three minutes. Speakers may be allotted less time at the discretion of the Chair.
- 7:20 p.m. Commissioner Announcements
Commissioners may make general announcements; no action will be taken.
- 7:25 p.m. Approval of Minutes: September 23, 2019 Regular Meeting*

INFORMATION AND ACTION ITEMS (90 minutes):

- 7:30 p.m. Staff Updates:
- Solid Waste and Recycling Transfer Station Feasibility Study
- 7:35 p.m. **1. ACTION ITEM:** Action to approve the submittal of a “Skip the Slip” Goldman School of Public Policy Analysis Project Proposal* to help the Zero Waste Commission determine the following:
1. Do paper receipts pose significant enough environmental concerns to warrant a policy intervention by the City of Berkeley?
 2. Would a “Skip the Slip” policy be a viable option for the City of Berkeley?
- 7:45 p.m. 2. Urban Ore 2018 Annual Report Presentation
- 8:05 p.m. 3. Community Conservation Centers 2018 Annual Report Presentation
- 8:25 p.m. 4. Ecology Center 2018 Annual Report Presentation

- 8:45 p.m. 5. Report back from the Public Education Subcommittee meeting on October 10
- 8:55 p.m. 6. Discuss future agenda items
- 9:00 p.m. 7. Action to adjourn the meeting

COMMUNICATIONS:

Documents/letters are included as attachments in the agenda packet. Links to online information are included below; printed hard copies of linked items are available at the meeting or upon request.

- GSPP client-based project description forwarded by Ilana Golin:
 - <https://gspp.berkeley.edu/career-services/client-based-projects>
- Founders' Hearts book sent by Dan Knapp and Mary Lou Van Deventer*
- Informational article links/webinars forwarded by staff**
 - Notice of Formal Comment Period for SB1383 CalRecycle Rulemaking: <https://www.calrecycle.ca.gov/Laws/Rulemaking/SLCP/>
 - Invite to the Berkeley Food Network Ribbon Cutting: https://www.paperlesspost.com/events/36180830-567f711d/replies/563515783-3e3de691?mkey=aG9iZXJtZWl0QGNpdHlvZmJlcmV5LmluZm8%3D&preconfir-med_token=123929005-57350249&utm_campaign=rsvp_nenv&utm_medium=email&utm_source=event
 - Webinar - Carbon Emissions & Deconstruction/Building Materials Reuse - Friday, September 20: <http://embodiedcarbonnetwork.org/webinars/>
 - Article: *California legislature wraps session with unprecedented recycling action*: <https://www.wastedive.com/news/california-legislature-wraps-session-with-unprecedented-recycling-action/563136/>
 - Article: *California's stalled plastics plan will come back. Here's what it could mean*: https://www.plasticsnews.com/news/californias-stalled-plastics-plan-will-come-back-heres-what-it-could-mean?utm_source=Sailthru&utm_medium=email&utm_campaign=Issue:%202019-09-20%20Waste%20Dive%20Newsletter%20%5Bissue:23118%5D&utm_term=Waste%20Dive

*Indicates material included in the agenda packet

** Indicates material to be available at the meeting



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Disability Services Specialist at 981-6418 (V) or 981-6347 (TDD) at least three business days before the meeting date. Please refrain from wearing scented products to this meeting.

*Communications to Berkeley boards, commissions or committees are public record and will become part of the City's electronic records, which are accessible through the City's website. **Please note: e-mail addresses, names, addresses, and other contact information are not required, but if included in any communication to a City board, commission or committee, will become part of the public record.** If you do not want your e-mail address or any other contact information to be made public, you may deliver communications via U.S. Postal Service or in person to the secretary of the relevant board, commission or committee. If you do not want your contact information included in the public record, please do not include that information in your communication.* Please contact the secretary to the relevant board, commission or committee for further information.

Zero Waste Commission Secretary: Heidi Obermeit, Recycling Program Manager, 1201 2nd St. Berkeley, CA 94710, 510-981-6357, hobermeit@cityofberkeley.info

MINUTES

The meeting was convened at 7:00 p.m. with Chrise de Tournay, Chair, presiding.

ROLL CALL

Present: Chrise de Tournay, Alfred Twu, Ilana Golin, Antoinette Stein,
Jennifer Lombardi, David Grubb
LOA: Annette Poliwka, Margo Schueler,
Absent: None

STAFF PRESENT: Greg Apa, Heidi Obermeit

MEMBERS OF THE PUBLIC PRESENT: 7

PUBLIC COMMENT: 3

ACTIONS TAKEN:

- 1. Approval of the September 23, 2019 Regular Meeting Agenda**
M/S/C (de Tournay/Stein) to approve the agenda for the September 23, 2019 regular meeting.
Ayes: Unanimous; Abstain: None; Absent: Poliwka, Schueler
- 2. Approval of the July 22, 2019 Meeting Minutes**
M/S/C (Twu/de Tournay) to approve the July 22, 2019 regular meeting minutes.
Ayes: Unanimous; Abstain: Lombardi; Absent: Poliwka, Schueler
- 3. Adjournment at 9:00 p.m.**
M/S/C (de Tournay/Twu) to adjourn the meeting at 9 p.m.
Ayes: Unanimous; Abstain: None; Absent: Poliwka, Schueler

The next regular meeting of the Zero Waste Commission will be held on Monday, Oct. 28, 2019 at 7:00 p.m. at the City of Berkeley Corporation Yard (Ratcliff Bldg, Willow Rm), 1326 Allston Way.

Respectfully Submitted:

Heidi Obermeit, Secretary

DRAFT — FOR DISCUSSION PURPOSES ONLY

TITLE: Skip the Slip (Environmental Policy)

CLIENT: Zero Waste Commission, City of Berkeley

CONTACT: Ilana Golin, MPP '10
Zero Waste Commissioner, City of Berkeley

ZERO WASTE COMMISSION, CITY OF BERKELEY

The Commission is responsible for making recommendations on City of Berkeley solid waste policy and goals, including commercial and residential garbage and recycling services, budgets, and other decisions relating to solid waste in the City of Berkeley. In February 2006 the City Council changed the name of the Commission from Solid Waste Management Commission to the Zero Waste Commission and updated its duties to reflect Zero Waste goals.

OVERVIEW

Do paper receipts pose significant enough environmental concerns and public health problems to warrant a policy intervention by the City of Berkeley?

In January 2019, California State Assemblymember Phil Ting introduced AB 161, which was nicknamed “Skip the Slip.” If passed, the legislation would have made electronic receipts the default practice when making a purchase in California (unless a customer specifically requested a hard copy). The bill did not pass.

The City of Berkeley’s Zero Waste Commission would like to know if a “Skip the Slip” policy would be a viable option for the City of Berkeley.

According to the nonprofit environmental group Green America, “Every year, US receipt production consumes millions of trees and billions of gallons of water, generating large amounts of waste and emitting greenhouse gases.” A 2018 study by The Ecology Center estimates that 93% of thermal paper receipts are coated with bisphenol A (BPA) or bisphenol S (BPS), which are chemicals that have been linked to developmental, reproductive, and neurological problems. Employees who handle these receipts all day long are, presumably, at heightened risk due to ongoing exposure. Furthermore, this paper is not recyclable, and is possibly contaminating recycling (and possibly compost) streams in the City of Berkeley.

POLICY ANALYSIS PROJECT DESCRIPTION

The City of Berkeley’s Zero Waste Commission is seeking a GSPP consultant (or consultancy team) to do the following:

- (1) Assess the extent of the problem for the City of Berkeley related to:
 - (a) environmental resources used to create receipts
 - (b) toxicity to humans and animals due to chemical coating of the receipts themselves
 - (c) litter due to receipts being dropped in public places, falling into storm drains, etc.
 - (d) contamination of recycling and/or compost streams
- (2) Presuming an environmental problem (or multiple problems) exist, suggest policy alternatives to mitigate the problem(s)
- (3) Make a policy recommendation for the City of Berkeley that balances environmental sustainability, economic efficiency, social equity, and political feasibility. (Note that sustainability is most often defined as: meeting the needs of the present without compromising the ability of future generations to meet their needs.)

The consultant (or consultancy team) will have support from the Zero Waste Commissioners as well as the City of Berkeley's Recycling Program Manager.

BERKELEY AS A LABORATORY OF INNOVATION

This project presents a unique opportunity for a student to get in on the “ground floor” of innovative environmental policy design and implementation. The City of Berkeley has a laudable history of being at the forefront of progressive environmental policies. The city was an early adopter of styrofoam bans, as well as bans on plastic bags and plastic straws. More recently, the Zero Waste Commission spearheaded an ordinance banning single use plastic foodware, and other cities are beginning to discuss enacting similar policies. Although AB 161 did not pass at the state level, a Skip the Slip ordinance could be adopted at the local level and serve as a “proof of concept” for other regions of the state, country, and world.

POINT OF CONTACT

Ilana Golin is an alumna of the Goldman School (MPP '10) and would serve as the primary point of contact for the student(s). While at GSPP, she was the Course Assistant for Introduction to Policy Analysis class and, thus, has experience supporting student consultants conducting policy projects. More recently, Ms. Golin was the Director of Strategic Initiatives & Partnerships at the Lokey School of Business & Public Policy at Mills College in Oakland. She was appointed as a Commissioner to the City of Berkeley's Zero Waste Commission in April 2019.

ADDITIONAL RESOURCES

- City of Berkeley, Zero Waste Commission
- Office of Phil Ting
- Green America
- American Forest and Paper Association

THE FOUNDERS' HEARTS

EXCERPTS FROM THE RECYCLING ARCHIVES



PUBLISHED ON THE OCCASION OF THE CALIFORNIA
RESOURCE RECOVERY ASSOCIATION CONFERENCE IN
RANCHO MIRAGE, AUGUST 11-14, 2019

THE RECYCLING ARCHIVES

C/O URBAN ORE, 900 MURRAY ST., BERKELEY, CA 94710

INFO@RECYCLINGARCHIVES.ORG

Orientation

In 2007 a small group of recyclers who had worked in the industry from its early days assembled in upstate New York to do oral history interviews with each other. The gathering had been organized by Dr. Daniel Knapp of Urban Ore in Berkeley and by Dr. Neil Seldman of the Institute for Local Self-Reliance in Washington, DC. They had been talking one day and noticed that not only were they aging themselves, but two friends had already passed on. They decided that if the stories of the industry's founders were to be preserved, the work had better begin.

Dr. Seldman asked an old friend about access to a retreat center he knew of. The center says of itself, "The Blue Mountain Center, founded in 1982, provides support for writers, artists, and activists. A 501(c)(3) organization, the center also serves as a resource for culturally based progressive movement building. We expand and deepen conversations among cultural workers and support projects that emerge from these dialogues."

The Blue Mountain Center generously donated several days of retreat. Limited space meant the group would be capped at about 25 "Old Gardeners."¹ Neil has known many people for many years, so he organized most of the invitations. Dan refreshed his memory on oral history, which he had learned from distinguished oral historian Cullom Davis at what is now the University of Illinois at Springfield. Dan

1 Participant David Tam of California coined this term.

had been a sociology professor there when Professor Davis established the oral history program. Dan wrote up a set of questions that all interviewees would be asked, and that would elicit stories about a wide range of experiences during the invention and development of the field of recycling from the 1970s to the 1990s. Pioneers' stories. Founders' stories. Stories of dreams and passion, sometimes danger, laughter, risk, disappointment, and success.

The oral histories that people gave are now being transcribed. More interviews have been added. Meanwhile a few of the the elders who have retired wanted someplace to send their papers so the information wouldn't be lost. Now the oral history project has turned into a national recycling archive. A few boxes of documents are in Springfield, but that library is too small to adapt to a large influx of papers. Therefore Urban Ore and ILSR have located the archive primarily in Berkeley, California, and the project is in process to become a 501(c)(3) nonprofit organization.

To date only a third of around 40 transcriptions have been completed. Each one takes many hours. They are being done by Wynne Coplea of Springfield, Illinois, the former Springfield Recycling Coordinator and President of the Illinois Recycling Association; and by Susan Kinsella of California's San Francisco Bay Area, who founded the Conservatree Paper Company.

The excerpts in this book are the first published stories from the longer oral histories. There are a lot more where these came from.

– Mary Lou Van Deventer, Urban Ore

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Benedictions

These stories are from some amazing people who, with such vision, creativity and dedication, helped lay the foundation for our recycling system with the intent of creating a better world. Our hope is that remembering those visions and values will help correct the current problems in the system and create a strong and healthy framework for its future.

Susan Kinsella
Conservatree Paper
Archives Project Staff

Recycling is the industrial brainchild of Earth Day 1970. It began as a combined environmental and social movement that intended to conserve the wilderness, resources, and communities by working. It emerged spontaneously all at once, all over the world, leaderless, with volunteers in backyards and on corners. They had no startup budgets, only their own energy. People wanted something useful they could do that was under their personal control. They thought about fundamentals, took personal actions, and got their hands dirty to achieve the altruistic goal of saving the Earth. Some of those visionaries became professional recyclers and turned the movement into an industry while trying to keep their values and visions intact. Their roads had many rocks and took surprising turns. These are excerpts from some of their stories, here to inspire future generations of visionaries. Yes, we can save this planet - and the right way, too!

Aunty Entropy
Mary Lou Van Deventer
Urban Ore Development Associates (UODA)

Dedicated To May Pon

October 12, 1947 - May 12, 2019

By Jack Barry

Jack also remembers Harvey Milk (May 22, 1930 - November 29, 1979) and Richmond Environmental Action (1970-1996).

It was June 1970 when May Pon and four women friends started Richmond Environmental Action (REA) in San Francisco. All five had attended a lecture series at the Richmond District YMCA as part of celebrating the first Earth Day that year. One of the topics was resource management. People presented on population, water quality, and many other areas of concern.

The five women decided that they could best take action personally by opening up a community-based recycling center. The University of San Francisco (USF) offered their parking lot at Turk and Stanyan. It became known as REA, Richmond Environmental Action. Recycling service was offered once a month.

In 1973, REA got a lot of its customers to call City Hall and ask “Where is the nearest recycling center?” Quickly the city started giving out the information. They

also stopped saying “What’s a recycling center?”

REA worked with the Berkeley and Oakland recyclers to create the Association of Bay Area Recycling Groups & Environmentalists. ABARGE rebranded itself as NCRA (Northern California Recycling Association) as it expanded across all of Northern California, where it still operates to this day.

In the spring of 1973, four men joined REA: Ed Dunn, Joe Bielskim, Charlie Starbuck, and me. We were charmed by the founders into helping. In 1974, Charlie Starbuck was appointed to the SF Planning Commission by Mayor George Moscone, who had come around to see what was with this new thing out in The Richmond.

REA got the City’s Refuse Collection and Disposal Rate Board to add a nickel a month “landfill diversion credit” to the authorized garbage rate. The money collected by this surcharge on garbage would be used to fund community recycling depots.

REA launched San Francisco into community recycling so effectively that the company was soon running 24/7. By 1975, REA was on the University

May Pon and Jack Barry, 2011.



of San Francisco campus and had opened two satellite

locations. By 1978, REA had helped nine independent startup recycling centers, citywide.

At about the same time, Harvey Milk came to campaign for supervisor and meet and greet the throngs who wanted to recycle. Thirty minutes into his scripted handshaking routine, he saw all the cars backed up around the corner onto Stanyan Street.

To May and me he said, "well, so much for campaigning." He dropped his leaflets into our VW van. He rolled up his sleeves and began unloading customers' cars. He did that for four hours, when we had finally processed all the intake for the day. He came back every month after that.

It may be that stopping the garbage burner in Brisbane was the most visible achievement that REA accomplished. Len Stefanelli and Sunset Scavenger were pushing the City to underwrite the burn plant, at a cost of \$500 million in 1978 dollars.¹ The burn-plant fight went on for years, and REA was a big part of it. In those days half a billion dollars was real money. The plan failed amid controversy.

But we did more than that. We had always been pushing curbside recycling collection, too. Eventually REA fronted a plan for 78 curbside collection routes, each handled by a three-person crew, with one truck per route. **REA also proposed that San Francisco's recycling be let out to bid.**

SF city manager Roger Boas told Stefanelli that he, Boas, was going to back the REA plan if he, Stefanelli, did not come up with the franchised garbage hauler's own plan for curbside collection. Sunset Scavenger quickly did that. The name changes came later.

It is working quite well now, except that it is a no-bid monopoly.

Later, REA pitched the idea of having a City bottle bill as a precursor to push for a State bottle bill. I was working on the text of the bill with by-then Supervisor Harvey Milk, in November, 1978. **May Pon, a certified public accountant, had done the financials to show the City that even a local bottle bill was feasible.** Our mutual friend, Attorney Duke Armstrong, was with us in a Market Street

1 That would be \$2.05 billion in 2019.

restaurant. We were focused on the details of the local bottle bill that Harvey would introduce, later that day, at the Board of Supervisors' meeting. We were also planning for the upcoming vote.

We finished, and he proudly walked off toward City Hall – and his martyrdom – 90 minutes later at the hands of Dan White.

Soon after he arrived at City Hall, Dan White knocked on Harvey's door. Dan White said, "Harv, can I talk to you for a minute?" Harvey started telling him about the "REA bottle bill," when Dan took out his revolver and shot Harvey Milk to death.

Dan White had shot and killed Mayor George Moscone a few minutes earlier. Like Milk, Mayor Moscone was a strong supporter of recycling.

At that time, REA had two fulltime, open-every-day dropoff centers. There was one at the USF campus at Anza and Collins, and another under the Central freeway at Haight and Octavia.

Which is where I was, at one of REA's outposts, when the police came in looking for Dan White.

I could go on, but the point is: all this was begun by five feisty women in the spring of 1970. Is it a continuing struggle? I think so.

Will the circle be unbroken? Yes, by recycling. Recycling is nature's baptism, ideally suited to avoid the hell-fire-scum of converting our discards to energy. The solar system gives us all the energy we would ever need. It is materials that are limited.

I have had more luck than I was entitled to. Because of this coming together, I was fortunate enough to meet May Pon and work with her all these years until 2019. [Editor's note: Jack and May married, and they lived together happily as a power couple working in adjoining home offices and raising two beautiful girls who both earned Ph.Ds.]

May was truly a woman for all seasons. I told her "See you in the Golden Recycle Center in the Sky," and she said "I hope they don't route you to the Big Eternal Burner."

The rest is and was both history and herstory.

Post script: REA continued on until 1996, when USF reclaimed the site for housing.

Foreword: Some Takeaways

By Dan Knapp

Look how big the struggle over resources became after the modern recycling industry launched simultaneously in thousands of places around 1970! The struggle is still going on and will continue until some deep underlying issues are resolved.

The crucial questions revolve around what actions best serve the public interest. The story of our particular moment here in 2019 is that the public interest – over time – has been appropriated by huge corporate interests backed and fronted by unscrupulous people. These interests, even when transparent, are oppressive, cruel, grasping, and undeserving of the public trust. We all live with the result: people set against one another with hateful speech and violent outbursts.

There is a way out, and these stories, with others that will also be told, show the way. A diffuse and broadly distributed collection of original recyclers who didn't know each other had a vision of a future where social cohesion runs high and all things seemed possible. They acted on their beliefs, and they prevailed more often than not, against not only opposition, but even against active interference, threats, and violence.

The influence of these pioneers will only gain after they are no longer with us. With courage and foresight, these are some of the people who stepped up. They made a difference, along the way discovering tactics and strategies that worked then and still work now – or would if they were used.

Read their stories, and you'll ideas will come to you for what you can do, too.

Stories: the interview excerpts.

In this first publication from the National Recycling Archives (NRA) there are seven excerpted interviews. Each followed the same format: 22 questions covered topics from biography to technologies to policy formation and its aftermath. Not all of the questions were asked by the interviewers, nor answered, but most were.

These seven interviews were selected from about 40 that have been digitally recorded so far. Each interview took about two hours. So far, about two-thirds have been transcribed from audio recordings and converted to digital word-processing documents by Wynne Coplea of Springfield, Illinois, and Susan Kinsella, of Petaluma, California.

Of the interviews that have been converted to documents, so far I have been able to edit seven for print. Editing for print is necessary because oral speech is different from written. Memories tumble out in bits and pieces. Often the overall meaning is diminished because the pieces are not in their proper places. There are superfluous words, mostly placeholders like “um” or “really” or “just.” Editing for print is time-consuming, but computers make the job much easier than it used to be. The most important thing is to keep the flow and meanings accurate so they describe what was intended.

I have added headlines to aid readers in finding favorite passages and to encapsulate the story in a few words as possible. The headlines also identify the beginning and end of stories. All the stories together add up to seven solos with the same theme. All together, what we have here is a magnificent chorus.

Enjoy! This is our very own social-environmental movement speaking.

Penny Hansen Interview

*Penny Hansen was the US Environmental Protection Agency's first recycling coordinator, a post she held for nine years before moving into hazardous-waste mitigation. All quotes are from the **Penny Hansen interview**, conducted by Laura Anthony at Blue Mountain Lake in 2007.*

Is ignorance bliss?

Gradually over the next few months we began our recycling service. It was relatively easy to start. We didn't know what we were getting into, so we had the optimism of not knowing.

As a woman, I'll take stress over depression.

I remember someone saying that women traded depression for stress somewhere in the 1970s, and decided that it was a good trade.



Penny Hansen, Facebook 2019.

Truth, values, success.

For anyone trying to get a new movement going, no matter what the topic is, you *have* to be able to articulate both the pros and the cons. You've got to be absolutely honest. You've got to be up front with people. You can't make it look like everything's just peachy keen and great and there are no problems to solve.

Understanding and respect get results.

I came to respect people like public works directors, who have a hard life. No one ever calls a public works director and says "Hey, the lights are shining beautifully outside my window tonight!" They call when the lights aren't on, or the garbage isn't collected [laughing]. There are a lot of people out there in municipal government who deal with nothing but complaints. These people originally looked at recycling as being another problem. They said, "I've got too much to do as it is right now!"

And yet, over and over again, those people were willing to change their minds. They actually started working *with* us on incorporating a whole new system, and in a way, a whole new ethic.

Doing right is uplifting.

I think that all people want to feel like they're part of the solution as well as part of the problem. But most don't want to be terribly bothered in the *doing*. Nonetheless, I think everyone who participates in recycling thinks that they're doing "the right thing." Since there's very little we feel we have control over when it comes to environmental protection, that sense of making even a small difference is uplifting.

My most interesting professional day.

My most interesting conversation was with some union drivers and workers. EPA and local government were starting a recycling demonstration in Somerville, Massachusetts. We were testing one of the first multi-material systems.

The federal government was paying to modify collection trucks and for publicity. On the day *before* it [recycling collection] was supposed to begin, I got a telephone call from the city manager in Somerville. He said, "The union has decided that they will not do the new program unless they get more money."

We had already spent huge amounts of money publicizing the fact that it was to start the very next day. If it didn't happen, we were going to lose all credibility immediately.

So I flew up to Boston. At 5:00 in the morning I was standing on top of a garbage truck talking to

40 guys. I brought donuts. We had an interesting conversation. They asked me a *lot* of questions.

At that point, a 5-foot-2 blonde [laughing] standing on top of garbage trucks was not something that these guys were used to. There were a lot of – shall we say – interesting comments made. In the end, they went out and picked up the recyclables. It worked!

I've always said that was my most interesting professional day, *ever*.

We've come a long way.

The percentage of Americans that were recycling in the 1970s was *very* small. I think we have forgotten how small it was. A *majority* of Americans are participating in recycling now. That is enormous! Between the 1970s and 2007 we have gained another *hundred million* people. And if 50% of them *are* participating in recycling in some way, the number is absolutely breathtaking!

Gretchen Brewer Interview

Gretchen Brewer (September 24, 1945 - February 21, 2017) wrote her memoirs in batches under the prompting of Dan Knapp. A selection of them was published at her memorial at the Brower Center in Berkeley after the NCRA's 2017 Recycling Update. These excerpts are taken from those selections.

I fell into the business of recycling in a big way.

As a social worker, I found myself thinking more about what people in this big city [Chicago] could be doing in the way of more meaningful work. I was looking for work for them, and for me, that provided both dignity and a livelihood. At a certain point it all clicked together: **recycling could be a good enterprise, a job creation enterprise.**

I hooked up with the founder and head of an organization called the Resource Center, a recycling program that started *really* early, like in 1968 in Chicago. I learned everything I could from the Resource Center's founder Ken Dunn, who is a



Gretchen 2001 with Navy progress.
brilliant guy.

In my first couple of years I was volunteering at the Resource Center and trying to read everything I could find. There wasn't very much. I didn't become aware that recycling was a movement until around 1982 when I went to a Northern California Recycling Association conference and I heard about the incinerator wars.

Right Livelihood

In 1978 I made up my mind that recycling was going to be my career for the rest of my life. It was like a vow. I had been reading Gandhi. Buddhist texts started me thinking about right livelihood for myself.

I didn't want to be like someone who works at a nuclear power plant and who finds later in life that

he or she is really sorry because of what they did for a living. I figured with recycling I would never be sorry. Beyond the avoidance of harm, I embraced recycling with great enthusiasm because it was all so new. We had to invent things as we went along. A lot of pleasure can come with that nexus.

You didn't do it for the financial reward, though. You had first to be a volunteer. It was not possible to get a job that paid anything at first.

A giant breakthrough came from a Hail Mary research effort.

I found paying work for the City of Chicago. Harold Washington was running for Mayor. A friend of mine was working on his campaign. My friend said to me, "Gretchen, you're always talking about recycling for economic development and job creation. The economic development debate is on in a few days, so why don't you write a position paper and submit it?" So, I did. I hurried! I looked up essays that Neil Seldman had written and reread things from California. I pieced together what little data I could to make a case for a plan.

My plan turned into a blockbuster that drew lots of media attention.

What I submitted was a citywide waste recycling plan for Chicago that would create around 7,000 jobs.

It was the early 1980s. My friend called me up on the day of the mayoral debate and said, "Gretchen, you won't believe this! There are a lot of dedicated campaign workers who've been working night and day putting together all sorts of position papers for Harold Washington. Yours has floated right to the top of the stack!"

Candidate Washington got on TV and announced he was going to create a citywide recycling program that would employ local people in the neighborhoods and it would create 7,000 jobs. We were thrilled!

(Include here a photo of my first meeting Harold Washington in March 1982, while he was touring the Options Recycling Team I started in 1981.)

Then Harold got elected. He scored a lot of good

press from that announcement. He toppled the machine in Chicago temporarily. I went to Mayor Washington's economic people, representing the Resource Center. I said "We Resource Center people helped you with this concept. Now why don't you fund some pilot programs?" And lo and behold, they did!

A first: a recycling service fee pays Resource Center for our work.

The Resource Center got a contract and money to pay us to start buybacks in three other communities in Chicago. Under Ken Dunn's direction, our staff used a Robin Hood type arrangement. The buyback would be located somewhere inside a poor community where there would be lots of people from Southeast Asia, as well as blacks and Native Americans. At this time we were also seeing a lot of abolition whites who were migrating up into this one part of Chicago. They needed the work and the money just like the others. So they'd bring carloads of people, and they would just find a vacant lot, put in a scale, and set up the barrels.

It was the approach that Neil Seldman had described: all hand labor, even featuring a hand-operated baler for cardboard. Once that buyback got established, we'd run small curbside routes out from the buyback hub into the adjoining middle-class neighborhoods. So there were little satellite programs springing up in different neighborhoods of Chicago.

This grassroots model became one other cities used. It had a lot of things going for it, and it lasted about ten years.

In the interim, we also helped write the City's first waste management plan. It set a goal of recycling 25%. I co-authored the plan and goal with the planning staff from the City. I was placed on a big commission that Mayor Washington appointed. Our group got into negotiations with the Department of Streets and Sanitation.

We negotiated a diversion credit with them. The diversion credit was based on research. Since garbage disposal was paid for, recycling disposal should be paid for as well. The diversion credit paid us \$15 for every ton we kept out of the landfill.



Some of the attendees at the Old Gardeners oral history retreat, Blue Mountain Center, New York. From top left: Bert Ball, David Tam, Rod Muir. Second row: Neil Seldman, Tom Padia, ???, Armen Stepanian. Third row: Tania Lipshutz Levy, Linda Christopher, Rick Anthony, Laura Anthony. Fourth row: Gary Liss, Brenda Platt, Gretchen Brewer, Jon Michael Huls.

This greatly strengthened the Resource Center and allowed it to do more good work. Ken Dunn has told me that the Resource Center earned \$10 million over ten years during the period where that fee was in effect!

My research helped sink a mass-burn incinerator.

Mr. Washington and his predecessors in the Chicago Urban League – particularly Whitney Young – fostered a more positive and pragmatic approach to community organizing. These early community leaders (some called them the Chicago Eleven) dialogued with Richard Nixon to help create the US EPA, the Clean Air Act, and similar legislation in the 1950s and 1960s.

The planning process launched by Mayor Washington in 1983 brought out the big guns – proponents of high-tech approaches such as incinerators. An article at the time compared a \$107,000 consultant study by Envirodyne performed for former Mayor Jane Byrne with the free study I wrote on behalf of recycling for Mayor Harold Washington. The Envirodyne study came first, then mine.

Here is how Bruce Fisher summarized the differences, in part: “When Ken Dunn and Resource Center Development Office Gretchen Brewer watched the candidates debate job development

plans and heard that Washington was thinking about recycling..., they got in touch with him.

“By March 11, 1983, Brewer had submitted a 14 page study/proposal ... to Washington’s research staff It is a minuscule document compared to the massive Envirodyne opus, but its very existence – and its contents – demonstrate that the \$107,000 spent on the Envirodyne Report may have been a waste of money.

“What Harold Washington got for free from the Resource Center is a well-researched study of how Chicago mishandles its garbage. Gretchen Brewer’s study suggests that ... \$40 of every \$100 that Chicago spends to get shut of its garbage goes for ‘landfill fees, incineration, and long-distance hauling’ and therefore each ton of junk diverted to a recycling system would save the city forty bucks.

“Given that about 36% of the solid waste produced here is recyclable, all that’s needed to save \$109 million over ... five years is to come up with a way to collect the stuff that can be resold. And Ken Dunn, as people all over the South Shore know, has such a system in place.”²

In 1983 and 1984, what I had learned about incinerators from Urban Ore and other San Francisco Bay Area and East Coast recycling leaders had proven timely and persuasive. As part of the Chicago Waste Management Planning Task Force, I was able – along with the rest of our recycling committee – to counter forces wanting mass burn incinerators. An op-ed I wrote titled “Burning Waste and Money” summarized my argument for Chicago.

I moved east and took a government job.

It was around 1982 when I became a paid member of the staff at the Resource Center. Then I worked for them as the development officer. I started new programs and did lots of public education. Eventually I found just couldn’t live on the low salary. I had an opportunity to apply with Massachusetts Department of Environmental Protection in ’85. I got the job and moved east.

2 Bruce Fisher, “Campaign Watch: Recycling Politics,” in *Short Cuts*, 1983.

We posted many firsts in our two-state plastics recycling plan.

From 1986 to 1988 I designed the plastics recycling plan for Massachusetts and Rhode Island. The challenge we faced was to explain the situation to the public. I saved my own plastic discards for one year. Then I measured and projected the results out into the cubic yards of “permitted landfill airspace” for 4 million people over 20 years. With a dense, still-growing population, and little open space for new landfills, it was clear that aggressive plastics recycling was our best bet.

But plastics recycling was so new at that time! My work group once again was required to create new solutions never tried before. We literally had to start from zero, creating a two-state program.

For starters, we knew we’d need MARKET PULL to assure that collected plastics would be converted, sold, and used again as new products. So I began searching for ANY company ANYWHERE that was making ANYTHING out of recycled plastics.

It was slim pickings in the US, with only a handful of companies using post-consumer plastics.

Gretchen Brweer and Timonie Hood, Hawaii 2001.



However, we learned that European and Canadian companies were making recycled plastic products. We knew IT COULD BE DONE.

We looked for ways that state government could become a large customer for recycled plastic products. The prospect of guaranteed sales would be a key incentive we would use to convince manufacturers to retrofit plants or invest in new technology for using recycled plastic raw materials. Massachusetts did not have a Buy Recycled policy, program, or interest. So we had to choose a recycled post-consumer plastic product over which the Massachusetts Division of Solid Waste could control the purchasing decision.

The suspense was on – us.

First we had to pioneer a product. And where better to begin than with the statewide recycling program? If we were going to COLLECT plastics, then why not also FEATURE recycled plastic products in the program? We chose recycling set-out containers, at the time the well known blue box. We thought manufacturers would be motivated by the chance to sell millions of them to state government.

In practice this was a big gamble for us. We did not know for sure if ANY vendors offered, or were capable of producing, recycled content set-out containers. But we took the leap. **In 1986 we issued the first purchase order in the United States for this product.** We specified 10-25 percent post-consumer plastic. Boxes with higher content would score higher in the bidding. We required that sample containers be included with all bids.

The suspense was on, then, to see if any bidders would meet our specs. The samples that came in were a motley assortment – mostly off-the-shelf items intended for altogether different purposes, like plastic crates and even a large flower pot! But thankfully we also received several promising-looking containers.

We set standards while shooting in the dark.

Our next challenge was to rate the samples without benefit of established standards for strength, weatherability, and so on. So we invented a highly scientific method we called the “stomp test.” We

turned each container upside down on the floor, and then my boss leaped into the air and jumped on it. We figured his weight approximated one to two weeks’ worth of recyclables plus wear and tear.

We disqualified all containers that cracked, collapsed, or did not spring back to their original shape. Fortunately, two passed. We ended this phase by selecting the one with better design features, proof of recycled content, and delivery guarantees.

In this way, Massachusetts became the first state in North America to issue a standard for the post-consumer plastic content for recycling set-out containers. Once 25 percent content was proven, it was an easy step to require 75 percent and then 100 percent.

Getting this one product launched set the ball rolling for what soon became the industry standard nationwide. Indeed, most jurisdictions now specify post-consumer plastic content not only for recycling set-out containers, but for a wide variety of compost and garbage collection bags, bins, and other receptacles.

I became a plastics industry insider, but it proved to be unsustainable.

I was hired into the State of Massachusetts Environmental Program because of my success as a recycling movement researcher and a writer of credible and influential reports that delivered measurably better results in the early stages. **I had done little or no work on plastics as a separate market category when I was given the job of writing the State plan for plastics recycling.**

You might think I was unprepared, and in one way I was. I had never even taken a chemistry class! I had to give myself the equivalent of a crash college major in polymer chemistry. I started out thinking plastics were impossible to recycle. Also I had an attitude against the plastics industry because it had not stepped up to take responsibility for its products via recycling programs.

But my general training and experience worked to my advantage. Research methodologies are

wonderful tools because they can readily refocus on new questions. I spent the next twelve or so years answering key questions about plastics, which became a big issue worldwide at that time.

I had some victories, and some defeats. The victories came early, the defeats later on. Throughout, I entered a new and unfamiliar workspace highly charged with passionate emotion. **At times it was difficult to stay on track with my principles.** I changed employment many times, becoming bicoastal, with a heartlandish underlayment.

Massachusetts Department of Environmental Protection, three years.

This was my debut performance in a to-then neglected subfield of recycling. My research on the Statewide Plastics Recycling Plan covered all elements of full-scale recycling systems as developed at that point in Europe and the US, including plastic discard generation; public health and environmental problems from plastics; collection methods; and market studies for recycled outputs such as pellets and lumber. Through tours, conferences, and consulting with experts, I analyzed materials recovery facilities' processing methods and costs and assessed the performance of competing recycling technologies.

Council for Solid Waste Solutions (CSWS), two years.

Working for this industry group was to be the pinnacle of my plastics career, but the seeds for a longer-term decline sprouted there as well. In this insider role, I served as strategic advisor to a well-funded plastics industry consortium formed to defend plastics from bans and other restrictions. I educated the public and decision-makers on the benefits of plastics and began building a plastics recycling infrastructure via research, pilot programs, grants, technology development, and other initiatives.

After my purge by the plastics industry,³ I returned

³ Gretchen was effectively blackballed from the plastics industry's work because of an incident. As she explained years later, she had been at a lunch with plastics industry people, and at the end of the

to government, working for the San Diego County Department of Solid Waste and Recycling for one year, plus two more years as volunteer lead of a Plastics Task Force. I designed a plastics recycling action plan for San Diego County. Per a directive from the County Board of Supervisors, I negotiated industry support and evaluated the outlook for a countywide plastics recycling program rather than enacting bans or other restrictions on Styrofoam™ and other plastics.

Earth Circle, six years.

I became an independent self-employed consultant on various plastics recycling projects. One big one was a plastics waste management implementation plan that involved designing and running a shipboard plastics waste composition study for Naval Station San Diego. I worked on technology transfer for the first plant in the USA that made trash bags from 100% post-consumer plastic film. I performed an agricultural film plastics recycling feasibility study for San Diego growers.

I tried to keep an open mind throughout this 12-year specialization, recognizing that while I might hate certain plastic products like packaging, I also valued other plastic products like my computer and eyeglasses. My view was that if the plastics industry was going to market an ever-increasing quantity and diversity of products, then they should take responsibility for implementing genuine, comprehensive recycling programs for optimum recovery of this scarce resource.

Eventually, and increasingly, it became difficult to hide my disappointment at some of the tactics I witnessed. Eventually I became a critic of the industry, based on their actual performance. This had very negative consequences for my financial

meal she had a muffin left over. She wanted to take the muffin up to her hotel room, and she asked for something to carry the muffin in, expecting a small bag. But the waiter brought her a polystyrene box big enough for a lunch. Gretchen exclaimed that she didn't need a whole box just to carry a muffin, and besides, she didn't like Styrofoam. The plastics people's eyebrows shot up, and soon Gretchen had not only lost her job, but she discovered she had a hard time finding work anymore in that subject area.

well-being.

An elder's advice to the next generation about the plastics industry.

The plastics industry is like the multi-headed hydra, always growing more branches, and branches of branches. The more we righteous recyclers mount campaigns against them, the more we will incur their oppositional tactics. **We must beware of underestimating their power or thinking we've bested them. Even if we win occasionally, they have the ability to outspend us, outlast us, and most especially to out-evil us.**

Remember that the plastics industry is the petroleum industry, is the chemical industry, is the pharmaceutical industry, is the weapons industry, is the military-industrial complex. *The Seven Sisters* describes one phase – the break-up of Standard Oil in the US – and the divvying up of world oil reserves among the main countries – US, Britain, and the Netherlands, originally after World War II. This led to OPEC embargo in the '70s. Later Mexico and Russia became players too.

Here is a list of common plastics industry techniques that I observed:

- Put words in your mouth.
- Mis-state what you are about and get you so tangled up in a mess of obfuscation that you waste your time and energy trying to clarify your stance.
- “Have sound bite, will obfuscate.”
- Distort your concern by claiming it is really something else.
- Change names frequently, like Native American shape-shifters did, and do.
- Rewrite history – as in claiming falsely that recyclers were wildly happy about the resin codes.
- Deliberately get you outraged and off-balance.
- Trot out “experts” and official sounding organizations, like the Plastic Bottle Institute, or the Center for Plastics Recycling Research (CPRR).
- The more heated the controversy, the more committees and councils with formal sounding names suggesting scientific rigor: organizations like COPPE and NREL.
- Harp on the safety of plastic food packaging to avoid foodborne disease and guard public health.

Never underestimate the plastics industry. The plastics industry does not play fair.

These techniques constitute a page from a well-worn playbook that's become very familiar since the Citizens United decision, and since G. W. Bush relaxed many other regulations. Now a corporate bigshot need only wait one year before he can go to work as a high-paid lobbyist influencing the US Congress to favor the big multinationals. Many former executives are available for this work while hanging safely suspended by their golden parachutes.

In a 2013 retrospective from the American Chemistry Council, industry claimed resin codes were popular with recyclers, the opposite of the truth. A National Recycling Coalition committee that was convened to get the codes withdrawn was outlasted, outlobbied, and finally outvoted by the plastics industry in a showdown at a board of directors meeting about a year before the NRC membership collapsed and the organization spent a couple of years reconstituting itself. By phasing in plastics-friendly legislation in the first states, the plastics industry was able to head off more restrictive packaging measures while legislators were convinced to give industry time to phase in codes in more states. Ultimately 39 states adopted the codes, and only one state later repealed the codes, I think Vermont.

The plastics industry's claim that burning packaging plastics will improve combustion in incinerators – which they call “borrowed energy or fuel value” – takes advantage of legislators' ignorance of how

Ken Dunn 2019.





Ken Dunn 2013.

these high-tech systems work, and a matching ignorance by them of what's really in the discard stream. It's very tempting to government decision-makers to throw big bucks at a black-box fix. Incinerators look good because they generate energy, and they are a remedy for anti-landfill NIMBY-ism.

Some arms of the plastics hydra urge governments to adopt flow control rather than allow free-market competition for the discard stream.

Ken Dunn interview

Ken Dunn (KD) started the first curbside collection program in the US in 1967. Originally conceived as a topic for a Ph.D. dissertation at the University of Chicago, it quickly grew into a business that drew others into its orbit. His nonprofit Resource Center became the owner of many specialized for-profit subsidiary recycling, composting, and reuse enterprises that are still operating in 2019. Wynne Coplea (WC) of Springfield, Illinois, conducted this interview in 2018.

Dad taught me the mechanics of life.

I think the best thing I learned from my dad was to figure things out on the spot. He never said, "you can't do this or that" – some aspect of whatever at the time we were doing. And so, when the tractor broke down while I was driving it, I liked to figure out what was wrong and whether I could get it going again before my dad got back. I wanted to learn how to fix things fast.

Sometimes he would tell me "It's remarkable that

you could get that tractor running. Not everybody can figure out why a machine won't run, and then fix it." I was never told to call a specialist to help. My father's philosophy was, "When you see a need, see if you can find a connection to something that went wrong and that caused the need. Then repair it yourself whenever you can."

WC: And you didn't call a repair person, right?

KD: No repair person was needed. There were several times in my growing-up years when I surprised my father. When I was about eight or nine, he came out to the machine shed and saw that I had the tractor torn in half. It was all in pieces. He was just so startled! He said, how are you ever going to get it back together? And I said, exactly how I took it apart. I dismantled the tractor because it was leaking oil.

Kansas farmhand enrolls at University of Chicago.

My boyhood experience of living and working in our Kansas farming community was inspirational. We had a highly functioning community. We and all our neighbors were all very responsible with all of the resources entrusted to our care.

So I was totally startled by the dysfunction I saw when I got to Chicago. In Chicago, away from the Hyde Park enclave, I saw non-functioning communities with needs that nobody seemed to have any notion of how to fix. Not enough was being done to take care of the needs of children.

Local change can move the world.

As an undergraduate in Kansas, I had been against nuclear weapons and against the Viet Nam war. I noticed back then that most people were thinking, that war is national politics; there's nothing we can do about that. What could we do to get people to think they could change things?

I thought, what if we got the community involved in changing the most local activity possible? That would be how the community collects and processes its discards. It struck me that if you gave the community the experience of being able to choose a fair and equitable way to take out the garbage, everyone would start thinking, if we can change this,

then maybe we could change things on the city, state, national, and even international level.

I wanted that change to happen, so as soon as I saw that we were onto something, our message was that together, we could empower communities by testing ways to pick up our discarded materials and redesigning these recovery systems as needed so the materials get conserved and used. As we did that, we could also change a number of other things.

I invented curbside collection by combining it with buyback.

As a University of Chicago student, I had this notion of doing an “intervention” as a class project. My experiment would be an approach to social justice and equality at the same time. I prepared by doing research to find out more about unemployment, and to figure out how to estimate the number of vacant lots in Woodlawn.

I borrowed a van. It was big enough that I could get 6 empty barrels – 55-gallon drums – inside. I drove the van and barrels to a vacant lot next to a liquor store that I knew about. As expected, there were five or six guys drinking there. They liked to throw their empty bottles over a fence into the vacant lot.

I said, “Hey guys, work with me here! We’ll pick up all these empty bottles, sort them by color, and put them in these barrels. After they’re full, I’ll go sell them. I’ll be back here in two hours after I sell everything. I will split up the money with you. I’ll take one part, and each of you that works will take an equal part.”

They did it. They helped me fill the barrels with recyclables. I got back to them a couple of hours later with the money. It turned out that an equal share came to about \$2.75 apiece, which was at least approaching a fair wage. It had taken us about an hour to pick up and sort the bottles and cans.

My experiment seemed promising. I realized that building value out of unrecognised resources was not just a theoretical thing, something I could build a Ph.D. on. It was a project that could be done. It would make a difference in social justice terms. And it could grow of its own accord.

As I passed out the money, I saw that the guys were very pleased. Just as I was walking away with my thoughts, one of the guys said, “Hey, man, where do we work tomorrow?”

And when he said that I thought, well! Expanding materials recovery is one way this community can turn itself around by using the neglected resources that have been left there by outside commercial interests. Still, I was about to say, no, no, you don’t understand, I’m doing this as a school project. I might even get a Ph.D. out of this! I’m going to go back and write it up. Others will read it. I’ll see some of the results in a few years.

But I couldn’t bring myself to say that, so I said, “I don’t know right now where we’ll work next. I’ll be back within 2 weeks with an answer.”

The first mobile buybacks, and how they grew.

A few days later I came back from the university with a mimeographed map of the area. I put slots into it every two blocks where I would be with a truck at particular times.

I told people that I would be here and here and here with my scales and cash, on a schedule. That way, they could accumulate all the bottles, cans and papers. Then they could bring them to me at those designated locations for pickup and payment. I would weigh them up and pay them cash.

When the first day came, it was a resounding success. I filled the truck and spent all the money I brought along to pay the collectors. Then I got the money back at the scrap yard. It was working! **That’s how the little experiment I tried became a weekly collection route for a mobile buyback service.**

When curbside collection replaced the buyback.

WC: And you started that in 1968, and it’s still going on today?

KD: Well, no. Eventually it became the core of our Chicago Housing Authority’s (CHA) recycling program. It became our local buyback program for this part of the city. The reason it became a project

of the CHA was that the City of Chicago mandated that CHA had to accomplish the same recycling goal as all the other city departments.

Just recently, the City dropped that requirement. **They said a buyback wasn't needed anymore, because now we had single-stream curbside collection.** Without the mandate, CHA and its partner agencies dropped the buyback service. The buyback closed down on the first of July this year, 2018. It did last a long time, 50 years.

The Diversion Credit fueled Resource Center expansion.

WC: Tell us some of what you've done related to policy and program education.

KD: The Diversion Credit comes to mind. After years of not getting anywhere when we asked the City to pay some of the costs for our expanding recycling program, I initiated what I called the Diversion Credit. The Diversion Credit was the amount of money that taking recyclables from households would save the City of Chicago. It was based on households that were served by the City of Chicago public housing, buildings with up to two apartments. The credit, paid to the Resource Center, would be equal to what the City would pay to dispose of the same tonnage in a landfill, if it were to be handled as waste by their system.

Of course, that was a clear winner for the City. For the tonnage we handled, not only did the City not have to pay what they would pay a landfill, but they also would not need to pay their collection, trucking, labor and transfer costs.

For years, our recycling was partly paid for by this Diversion Credit.

Our urban farms grow organic food over contaminated soils.

With a circular economy, the output of one industry is the input for the next industry.

We at the Resource Center are putting most of our energy now into providing local food using our urban agriculture and composting program. We have developed a technique of farming that is famous around the world. But few in Chicago know

why it's so good.

Our City Farms operate on industrially devastated spaces. We usually test the soil before we go in. In every lot I've tested, if it has soil, that soil is dirt you wouldn't want to grow your food in. It's been contaminated in some other way by our industrial economy, usually by its effluents. So we encounter lead, arsenic, cadmium, petroleum.

What we do before we start farming is to fashion a bowl out of six inches of compacted clay with a berm all the way around the outside. These bowls are about two feet deep. We fill them with compost. Thus there is no contact with the original soil at all.

Then we grow food in clean composted soil within the bowl. The rich compost allows us to multi-crop. With greenhouses we can grow up to ten crops a year in every bed. This kind of farming doesn't diminish the soil, because we bring in four inches of new compost every year to replenish what the plants consume.

We get most of our nutrients from food discards we collect from high-end restaurants. We encourage these businesses to contract with us – and pay us dearly – to take away their discarded food, food that would otherwise be wasted. They pay us enough as collectors and processors to pay for the production of finished compost that we can deliver back to our farm for free, completing the cycle.

To make a workable, modern, complete-the-cycle economy, we have to compete with the cost of food that is industrially produced, meaning grown using machinery and chemicals that are not good for the planet.

We sell most of our produce at farmers' markets at nice prices. For tomatoes we usually get three dollars a pound. We sell some produce to the same high-end restaurants who pay us to get the food "waste" recovered. And so, with our technique of ten crops a year on every bed, we can produce \$160,000 of value on a farm of one acre. The income lets us employ five people at \$25,000 to \$30,000 a year out of that \$160,000 dollars. Our only real expense is our labor.

WC: Say that again now, please? You're saying one urban farm of one acre can produce \$160,000 worth of value, and employ five people?

KD: Yeah, a single one-acre farm, \$160,000 of value, and it employs five people at a living wage. It's especially good for the workers if they don't have to pay for transportation to their job site because they live next door. Also, they can greatly reduce their food costs at home. All of our farmers are allowed to take home as much as they want (laughing).

I don't buy much food any more. I mostly eat what we grow.

Our nonprofit has many for-profit subsidiaries.

Early on, I thought that one of the provisions in nonprofit law is that your nonprofit status can be revoked if you found yourself in a field that you could profit from. I was unaware at that time that a nonprofit can establish a for-profit subsidiary for its mission. Once I learned that it was possible to keep the enterprise as a subsidiary, every time I had a unit that was turning profitable I sold it to my unit supervisor, who then owned the business.

This is why the Resource Center happens to be the parent of a number of other more specialized recycling entities. The nonprofit Resource Center

specialized in developing whatever parts of materials recovery that we could, and when the parts got profitable enough to sell, we sold them to our for-profit subsidiary.

Everyone reading this should note that a nonprofit can have a for-profit subsidiary. Having that subsidiary means the parent can put its profitable businesses into it.

So many subsidiaries.

WC: I think it's fascinating that the Chicago Resource Center has either spun off or still manages so many different enterprises. You have curbside recycling. You have commercial collection at several places for typical recyclable materials, right?

KD: Yeah.

WC: And then you have drop-off centers –

KD: Yes, but only two at this point.

WC: And you have the Creative Reuse Warehouse; you have the bicycle repair workshop; you do the composting on vacant lots scattered around the city. We talked at length about the mobile farms. Plus, you have a closed-loop food recovery route where you pick up from restaurants.

City Farm 2019.



KD: Yeah. Our truck driver operates with a cell phone. So maybe a caterer calls us at 11 o'clock and says, "I've got six turkeys prepared to serve at noon, but the wedding's been cancelled. Can you come and pick up these turkeys?" Our driver knows where lunch is being served at some nearby pantry. So he can swing by the caterer's and pick up the turkeys and then drop them off at the pantry or shelter that's serving lunch to homeless people.

This food recovery service is sort of like the one run by the Greater Chicago Food Depository. But we call it the Prepared and Perishable Food Service. It's food that's too good right now to send to a warehouse, stored in a cooler, and then sent out on another truck. You can't keep the turkeys warm or hot that long.

WC: Don't you also do community gardens and use some of the harvest in a restaurant or café?

KD: We participated in most of the community gardens that popped up in Chicago. Often we'd organize them with help from a block club. Or we'd just be contacted by a block club for some help; we'd sometimes deliver some compost to them to get them started.

Also, we partner with KAM, out of Temple Isaiah Israel. Richard Neville runs that program. He rescues from community gardens and takes the food to homeless shelters.

One thing you may not know about community gardening is that every year, everybody's gung-ho out there planting in the spring. But come mid-August some of them go on vacation for a month, just when the garden is producing. It's hot, too. Significant amounts of production from the community garden go to waste in the fall because the gardeners can't keep up. KAM steps in and harvests the food while the gardeners are away, or too busy. So salvaging from that community garden is done by the Jewish temple here in Hyde Park.

WC: Do you have a café that is open regularly?

KD: No. But when we started Blackstone Bikes in our first location, we had a bakery that sold bread.

The site also had a creative reuse room and a free book exchange. We provided tools for repairing autos plus woodworking and metalworking tools. *That* still operates as a community center. My manager from those early years runs it now. It's called "Experimental Station," and it's at 61st and Dorchester. There has been a coffee shop off and on there, and it is still there now.

It's not easy to run coffee shops in Chicago because of Starbucks and other coffee chains. So Resource Center doesn't operate a coffee shop anymore. But we have, at times.

Our latest venture: food recovery.

I took on a new project three years ago. We bought a 120,000 square foot warehouse! That's a big warehouse, three acres big, with six more acres of mature forest now growing on what was formerly the parking lot. The building was built as a street car garage in 1896. The six-acre outside yard was parking for the street cars. The building had been abandoned. It needs a lot of work.

So I started a project I called Sustainable Nutrition Institute. The building has 12 truck doors, which are necessary for food-recovery expansion.

Having been doing composting for a considerable time in Chicago, I am aware that between 600 and 1,000 tons per day arrives in this food hub of Chicago in an unacceptable condition. For example, take a sea container of bananas. If some of the bananas are brown on the outside, the whole container is written off as a loss. It's either sent to compost or to the landfill. The bananas are not ready to eat by my taste, but they are for a lot of people who wait a little longer for them to get their full sweetness.

So with this Sustainable Nutrition Institute, we will ask the City of Chicago to enter a new way of operating. Never send any nutrients to landfill or compost directly, but send it to the Sustainable Nutrition Institute instead. There, it will be inspected as it was unloaded.

The bananas that just have a brown spot or two will be re-loaded right into other trucks. They will go out

to farm stands and homeless shelters to be eaten that day and the next few days.

Food that comes to Chicago has to have seven to ten days' freshness left in it, because that's how long it takes to get from the distributor to Jewel, or to the corner grocery store. Then it has to last a couple of more days on the shelf.

I've received a truckload of onions where the onions on the outside and top froze. We unpacked those boxes that were on the outside and composted the onions that froze. The rest of the onions could just be distributed for eating. I've taken a semi-trailer load of sweet corn that was just too brown but was still quite good animal feed.

So, this 600 to 1,000 tons a day would be routed either back out to be eaten in the next three days or so, or go to industrial kitchens where it would be canned for future use. Or it would be baked into banana bread or made into salsa. It's a four-step process: the first is for food to be sent back out and eaten directly; second is for food to be prepared for being eaten later after a kitchen takes it; third would send some for processing into animal food; and fourth, whatever's left would just be composted.

Food recovery and composting and vacant-lot gardening could generate 200,000 jobs

We worked toward this new project while noticing that with all the vacant lots there's tremendous job potential. But we found that to grow food on the vacant lots we needed to grow only in compost elevated above the existing soil. That's because we've tested over 200 lots in the city over these last 50 years. We've found that none of them have soil that you'd want to grow plants in for human consumption because of lead, arsenic, zinc, cadmium and other contamination.

So if we need both jobs and healthy vegetables in communities, there are still communities that have 50% percent unemployment and 50% percent vacant lots. If all of those vacant lots had compost on them, five fulltime jobs could be created on each acre. That would be 200,000 entry-level jobs for our city.

Sustainability is going to be achieved by more

equality in our communities with quality of life existing both in the north side and south side. We'll use their resources – vacant lots and a high level of job-seeking individuals – to produce food on those farms.

WC: This is just such a logical choice. It's a closed loop. It's a beautiful thing!

KD: We've done job training in urban agriculture with hard-to-place ex-offenders. It's really quite attractive how they identify with getting to work outdoors. They see the results of their labor day-by-day, with beautiful crops growing within weeks of starting. We don't preach to them. They soon notice the parallels between their rebuilding of their *own* lives and us rebuilding the city.

It's quite obvious to you and me, but we've got a way to go to convince others.

There are 40,000 vacant acres in this city. If all those lots were gardens, we could produce five jobs that pay between \$20,000 and \$30,000 a year for five employees. At five employees per acre, 40,000 acres is 200,000 jobs.

I've had multiple threats and intimidation attempts

I've had multiple threats against me personally. The first came over the phone. "I'm down here at the union hall" said a guy on the line, "and I wouldn't recommend any harm to *anyone*. But I'm hearing conversation among some of the guys I work with who are sort of hot-headed. They want to discourage you from developing your recycling program. I hear them saying that they know where your home is, where your kids go to school, who you're working for and where you work. So, this is just a heads-up. I'm concerned that there be no violence."

At one point, they actually got the City to condemn my home. It needed tuck pointing around the bricks in a wall. But the judge sided with me, because I compromised and had a brick company rebuild the entire wall. That got the court case dismissed. That upset was caused by the union's wanting only the big waste companies operating.

Then there was another time a few years later. A

guy called me on the phone. He was very inquisitive about what I was doing, where I could go with a truck to make a pickup. But he wouldn't give me his name or phone number or address. And then he said, "I know you work late. I can meet you anyplace on your route so we can talk."

So this was a second threat. I thought maybe it was a totally different union behind it. But it was fishy. I was scheduled to do a drop-box collection early next day in the Village of Oak Park. So I said, well, I'll be doing a collection in Oak Park before the city comes alive. I'll be at this address – I think it was on West Madison – at about 5:30 AM to meet you. It was a Sunday morning. He said okay, I'll meet you there.

Actually, I'd given him the address of the parking lot at the Oak Park police station. And 5:30 AM was the hour that the shift changed, so there would be lots of police walking around.

I was there at 5:30 AM for the appointment. This four-wheel drive came in, with four burly guys in muscle shirts inside. As soon as they turned into the parking lot, they stopped. Police were walking everywhere. I acknowledged them with a friendly wave, and walked over to their vehicle. I said, we were supposed to meet here to talk, right? And they said, well, no, we were just passing through. I think we got all that we wanted. And they just drove away.

To be an effective steward, think like a farmer.

I was in high school by the time my dad became disabled and wasn't working anymore. But he did come out on the first day of harvest, to watch us work. I was combining wheat. I had detected an issue coming from the machine early in the day. So I stopped harvesting and fixed it before it got bad.

Dad said he had noticed me being very careful to adjust and operate the machines so as to not waste any of our crop. Then he told me this: "You have a real sensitivity towards plants and machines. I hope you keep that and apply the same sensitivity to people, for all the rest of your life."

His blessing was typical of how our community thought and acted. **There was no distinction**

between taking care of the plants, animals, soil, the machines and the community itself. Taking care of all of them at once involves listening more than expressing yourself, finding out what the plant and the animal and the machine needs are before you emphasize what *you* need. Hear what is happening before you ask a machine to do things it can't do if the problem persists.

WC: That's a lovely thing. I wish there were more of that kind of stewardship ethic out there.

KD: There's some pleasure that comes to you if you don't have conflicts between one or another solution being proposed. Conflicts like these typically come up over questions like, do we take care of the jobs, or the economy? Do we take care of the environment, or industry? When you think like a farmer, there's no tension between these different interests. They all depend on each other.

The central activity of human life is to find ways to live on the thin surface of this particular planet. Our culture really does need the climate, the plants, and the animals we inherited – all of them – to support us. If we can't retain diversity and pluralism, if we can't operate sustainably in this age, we'll end species upon species.

Eventually, we ourselves will be among the extinct.

Our generation's work is to find the next solutions.

Marx was right: the absolute worst thing for humanity is a tool that has outlived its usefulness.

A more recent author said, "capitalism has universalized everything so much that it's winner take all." In other words, capitalism is very unhealthy. The factory that is first set up to make something takes everything, all the market share.

What has happened is that the traditional mitigators of the violence of capitalism – the church, the educational institutions – have been weeded down to those who have found a way to survive as capitalist critics. They are no longer the mitigators of capitalism. So it's up to us. We *have* to be the ones to establish the next solutions outside of any institution that survives the capitalist order. Because

all the traditional mitigators know that they better not do anything that would really turn it around.

Summing up: two stories.

Just the other night I heard a storytelling program on NPR called The Moth Radio Hour. I thought, sometime if I have time I'll see if I can get on with my story. If I ever do that, I'm going to tell about some things I learned by working with and in an impoverished community.

The first one would be the story I told you earlier, about my little venture in Woodlawn to see if we could turn cleaning vacant lots into a business. My life veered off its course into a big new horizon when the gentleman said, "**Where do we work**



Tania Lipshutz Levy 2007.

tomorrow?"

From that incident I learned the responsibility of having ideas. If the idea's intent is to impact society, then stick with the developing impact. Don't drop off into the theoretical.

The second thing I learned from Woodlawn came to me when I was digging in one of these vacant lots. Some boys came by. It was about dusk. I heard two boys walking down the street. Then I heard them kick a bottle. It smashed as it hit against a curb. I thought, hm! I'd better keep low or I may be having trouble here.

But as they got closer, one boy saw a pile of bricks I had built up, and some boards that I had piled

nearby. One boy said to the other, "What are these bricks and boards doing here?" And the other guy commented, "I think they're building a garden." Then the first boy said, "That's what they ought to do with all these dumb old lots."

Listening to these kids, I'm thinking, yeah! We should turn this little experiment into an ambitious plan to have a community where there are no barren and despoiled vacant lots to injure the people who live among them. We can just clean them all up and make them productive.

I'm still working on that vision that these boys confirmed. They were telling me, hey, it's easy enough to see that making gardens is what we ought to do with all these dumb old lots.

And so, end of story. It's now 50 years later. It's been a very pleasant life. I learned how to enjoy my life and work while experiencing it in an impoverished community. No sense of loss, no regrets.

Tania Lipshutz Levy Interview

Tania Lipshutz Levy (TLL) (January 7, 1946⁴ - September 1, 2011) was the remarkable woman who wrote "Garbage to Energy: The False Panacea," an influential booklet that was widely read by recycling advocates worried about unfair competition for the resources. Later, her testimony stopped the first mass-burn incinerator proposed for the State of California, setting the stage for many burn-plant battles to come. Gary Liss (GL) interviewed Tania at Blue Mountain Lake in 2007.

My Parents Were Frugal

I was born in the USA in 1946. As a young girl, I lived in center-city Philadelphia, which was old ethnic fish markets plus a variety of other stores, and small unimproved houses. There was a junk man who would come around and get our bottles and metals and cardboard. There was a milk man who would pick up empty bottles of milk and leave full bottles of milk. A few years later we kept our

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Birth date found on the website tributes.com.

discarded food separate for the pig farmer. I guess I was before the curve.

But it was just natural; it was the thing to do in my family. My parents were of the frugal generation. Reuse and repair things. Don't buy too much. The purpose of money was to give it away to people who needed it, not to buy more stuff for yourself.

GL: So it wasn't a social movement, it was just what your family did when they needed to get rid of things.

TL: Right. But I was primed for something bigger. As I grew up and entered college, my mom would keep the bottles and papers for me to handle. When I came home from school there they would be, neatly organized and ready for me to find someplace in the city to take them.

Scaling up.

There was a time around 1968, where Ecology Action and others in Berkeley had gotten dropoff recycling going. That was when I first got involved in what soon blew up into the worldwide recycling movement, by taking things to that Berkeley dropoff site. I just started thinking of recycling as: of course! This is something we should do as a society.

In the early 1970s I went up north to a ranch community to live. It was a 5,000-acre community of people. I had 80 acres to live on, and we all had some farm chores to do in common. There were recycling barrels on the farm for all to use.

In 1973 there was a recycling processing company not far away in Ukiah. So we would haul recyclables down to those working recyclers in my pickup truck, or somebody else's pickup truck. Compared to the home I grew up in, we at the farm were doing recycling on a bigger scale, and that was interesting.

I wasn't squeamish.

When I had the ranch, we got to use some forms for making a compost privy out of concrete. The forms were designed by Sym Van Der Ryn, who served as State Architect under Governor Jerry Brown during his first term. We used those forms to make and install used our first compost privy, which of course

we used. Then we went around the ranch making a compost privy for each of the households.

After that, one of my jobs was to take off the plywood door and use a pitchfork to turn the composting organics into the next bin. I was also recording the temperatures of the "humanure compost" for the State's Office of Appropriate Technology. I thought it was fine to be doing that research. I wasn't squeamish about it.

I saw that the recycling vision was not limited just to getting things out of the landfill or picking up litter. Its real identity flashed in front of me with all its pieces in order. I thought, recycling's many applications provide multiple pressure points to change the way that industry looks at resources. We were looking to change the way that industry uses resources to manufacture things.

GL: And when did that flash before you?

TL: The first day, at Garbage Reincarnation headquarters.

I went looking for an apprenticeship.

I went back to school too, to get another degree and learn my chosen trade. I took a couple of years' worth of professional courses in environmental studies. We had a steady-state economics class. We learned how to do whole systems analysis for environmental impact reports. We learned about different levels of analysis: the physical, the biological, the social, the monetary.

Then I read an article about a garbage-to-energy plant being proposed for a four-county area north of San Francisco. Our county, Sonoma, was the center of that cluster, so I thought it was likely that it would be built and operated near where I was living.

This incinerator was the first waste-to-energy proposal from the California Waste Board that had been funded, so a lot was riding on it. But when I read through its pages, it looked wrong to me. It looked like they were leaving things out of the analysis.

So that's how I found my apprenticeship. I went

down to the recycling center to find out what they knew about this plan to burn garbage nearby. And I found that they already had a file cabinet full of information. I read and learned as much as I could as fast as I could. But there was a lot to cover, and before I got very far, I was already showing up at meetings.

I drove to Mendocino County to make a comment to electeds who were already favoring the burn plant project. I got a hitchhiker to read more of the recycling center's material to me as we drove to the meeting. Then I gave a speech, to tell them about the technology they were approving.

Garbage Reincarnation.

You may ask how long did it take me to get into the field once I found it? About 24 hours. Advocacy turned into my paid work. It wasn't all mental. The recycling center job that I was offered was about half physical work and half lobbying – writing position papers and making presentations.

I worked for a small but fast-growing nonprofit company called Garbage Reincarnation. It was run by Mike Anderson. Some of the staff at first suspected that I was a spy for the garbage companies. Here they were, already doing battle over wasting versus conservation, and now comes this woman with all this enthusiasm. She goes through their files. She acts like she really cares. Where did *this* come from? (Laughs.)

But I won them over. I baled enough cardboard (laughing).

The first waste-to-energy plant as a big sprawling thing.

We killed the the first waste-to-energy plant that was being planned for the State of California. Mike hooked me into this. He was very clever. He and his cohorts had already been talking to the various supervisors in Sonoma County. Then he asked me to write up a cost-benefit analysis analyzing what participating in this thing would really mean.

The project was was geographically big, sprawling really, and would likely have been very costly to operate. The consultants' plan was to take garbage

from several coastal counties, Mendocino County, Sonoma County, Solano County, and Marin County, and truck all that garbage to Healdsburg, just off Highway 101.

GL: To Healdsburg? Oh my gosh!

TL: Yes, Healdsburg, in Sonoma County close to the Russian River. There, they would build a plant to burn all this garbage from all over to provide electricity for Healdsburg.

I put Mike's vision into my book.

Mike raised my profile. He sponsored me to write and publish "Garbage to Energy: the False Panacea." It was a small book that we published cheaply whenever supplies went out. It was full of disturbing facts about burning garbage, and heavily footnoted. It became well-known in the field just as the burn plant proponents were starting their campaigns all over the State of California. I think the first printing was out by 1978.

GL: So, within a year of starting at Garbage Reincarnation, you wrote that major treatise on a competing discard handling technology. That critique was read by people all over the country, and for a decade afterward. It was a key document, wasn't it?

TL: Yeah. There was a first version, and an improved version in 1979. The book was essentially Michael's vision of what needed to be said. He'd been wanting to do this kind of extended treatise himself, but he hadn't had time because he was running the business. I was able to start with a coherent argument and a lot of supporting evidence.

My research was confirmed by an unlikely source.

I now had time to find out the flaws of this one, and the ash soiling peoples' laundry at another one, and the explosion, and the death. Things were clogging up the machinery, because the infeed was diverse, unpredictably complex, mixed unsorted garbage.

I concluded that the plants were simply unable to take mixed garbage that changed every day, *and* control the air pollution, *and* control the flow. The burn-plant companies were using off-the-shelf

mining equipment that was built for a uniform feedstock like wheat and chaff, or low-sulfur coal or high-sulfur coal or whatever, but certainly something predictable.

I got great help from an engineer. His work involved troubleshooting waste-to-energy plants. That was very helpful to me. Without giving me confidential information, he was willing to bend enough to confirm or critique the accuracy of what I had found. It was a great relief to have an engineer willing to tell me that I was saying in public was accurate. Because we really needed to tie things down that way. We wanted to tell the truth.

A young supervisor's questions sank the burn plant.

When I did go to the Board of Supervisors, I noticed that one of them was asking the right questions. His name was Brian. He was tall and slender, *really* young. I saw that he had this list in front of him. He was going "well, Mr. Consultant who's making this presentation, you're telling us all the good things about this plant, but what about these bad things A, B, C, and D?"

By the time they were finished with the consultant, the supervisors had decided that I was right. If the consultants were presenting just the positives and not the known risks and potential negatives, then the conclusions of their "study" were foredrawn. Down the road, the County would be faced with the decision whether to go ahead with a flawed proposal after a lot of expensive work had already been done.

How much staff time they would have to put into it became an issue. Something in the package said "no staff time" would be needed, but was that true? No. When you looked closely at the details, County staff were going to have to give the designers lots of information. They were going to have to meet with the burn plant vendors too, and compare them, and decide.

So the Sonoma County Supervisors eventually decided they wanted to give recycling a try before they went further into procuring a waste-to-energy plant for garbage.

GL: And what year was this?

TL: This was 1977.

GL: 1977? Wow!

TL: Yes! The one we killed was the same plant that I went up to Mendocino County to give a talk about.

The Berkeley landfill study showed that consultants weren't

measuring the discard supply accurately.

The Berkeley Landfill was required to close in October 1983 to satisfy a court order. Urban Ore had been salvaging at the landfill since 1979. They sometimes appeared at City Council meetings with bags and boxes of toxic and hazardous materials they were finding that should never be burned. They also challenged the City consultant's composition study figures, particularly the ones for plant debris, but for other categories as well.

Eventually the City decided to pay for a study of what was actually being brought to the dump right then. This was to inform the design process for the new transfer station that would replace the landfill. I got the contract through GRI and worked on that study with Mary Lou Van Deventer and Portia Sinnott, both of Urban Ore.⁵

GL: With Mary Lou Van Deventer?

TL: Yes, with Mary Lou Van Deventer of Urban Ore's design group, and Portia Sinnott, who was a strong reuse person who had worked for the company as a salvager at the dump. We paired up with a sociologist at the University of California, Berkeley. Our study would be a combination of a refuse study to characterize what was coming into the dump every day, plus a survey of the haulers' attitudes toward new recycling services.⁶ This had

⁵ In 2019 Ms. Van Deventer, still with Urban Ore, recalled that by the time the study was done Portia Sinnott had moved on to independence.

⁶ Editor's note: The Garbage Reincarnation (GRI) composition study was designed to measure loads and attitudes of self-haul customers only, not construction and demolition debris boxes or packer truck loads. The study used Dr. Daniel Knapp's 12

never been done.

GL: When was that?

TL: This was 1982-83. It took a year to do. Seven days at the dump were sampled each quarter. The days we selected were randomized. Each quarterly set of seven sampling days included one each of Mondays through Sundays. Seasonal variations in the flow of materials were recognized and measured. The landfill closed on schedule in October, 1983. The study was done by then. The results confirmed that the City's burn-plant architects had used composition data that was inaccurate.

Mike Anderson mentored me after my father died.

TL: Mike Anderson was my mentor at Garbage Reincarnation. He taught me elements of the business: how to drive a forklift, how to work with markets, how *not* be flattered by the opposition and diverted from your purpose.

I needed that influence. My dad got his first heart attack when I was two. He died when I was 12. Confronted by his own mortality, he announced me as a new light-heavyweight fighter for a better world! He told me that he assumed when I was in the womb that we had a deal: making a better world was what I would do with my life. But he died too soon and never got around to teaching me *how*. That was always absent, until Mike Anderson took Dad's job on for me. He finished it for Dad. And I'm very, very grateful to Mike, because it has been so much fun.

Violence and intimidation could cut both ways in Sonoma County.

GL: Do you recall any instances of violence, intimidation or threats against any reusers, recyclers or composters?

Master Categories® for analysis. Urban Ore's salvagers concentrated on self-haulers, who were grossly underrepresented in contemporary composition studies done by engineering firms. Hundreds of self-haulers came in daily to dump their loads, large and small. Beth Schickele of the Berkeley Solid Waste Commission insisted that the study also be designed as an attitude survey.

TL: Mm hmm, sure...⁷

When I was at Garbage Reincarnation, Redwood Empire Disposal, the garbage company, was pretending to be partners with small haulers. Then they took over their operations. They wanted to shut down all of the small haulers that would compete with them for supply.

Meanwhile, Mike Anderson of Garbage Reincarnation was trying to build a coalition of small recycling haulers against the predatory garbage company.

Redwood Empire had some fine politicians. They were pushing very hard to have *private* ownership of transfer stations. The landfill could be in public ownership.

But we at GRI felt that if you have a monopoly facility, it must be publicly owned. Even if it's privately operated, it *must* be publicly owned. Otherwise, no one can ever compete with the waste company. The private owner can charge anything it wants. It can discriminate between haulers. That's an unfair advantage.

GL: You were able to get that anti-monopoly idea into the Sonoma County waste management plan as an adopted policy, right?

TL: Yeah. Still, they were fighting very hard, and they were trying to put the recycling center out of business. What they really wanted was to get bigger so that when they sold out to Waste Management, they could get more money for their asset.

Meanwhile, we had a cardboard route, and they were trying to interfere with it. They would have somebody do that from a government program that

⁷ Tania starts this section with the City of Berkeley's attempt to put Community Conservation Center out of business by stealing a part from its baler. This incident has been left out here in the interests of brevity. For an eyewitness account of the same incident, see Kathy Evans's excerpts in this same publication. It is covered in considerably more detail there. Nancy Gorrell also covers this story in her interview.

paid companies to hire people who were hardship cases.

GL: Was that government program CETA, the Comprehensive Employment and Training Act?

TL: CETA, right. So Redwood Empire had one of their CETA employees follow our truck in one of their company's cars. Also they were sending letters to our customers saying that they had the franchise, and therefore these companies were doing business with us illegally. It wasn't true. They didn't have an exclusive franchise to handle commercial recyclables.

At one point, Mike trapped the Redwood Empire car between two GRI trucks. Mike confronted the guy, and punched him. Michael did beat him up. He will tell you that story.

Another time, I went to start one of our trucks and I noticed a little oil dripping. We opened it up and found that a brake line had been cut.

GL: Hmmph! This was in the 1970s?

TL: No, the early 1980s.

So there were attempts at intimidation and sabotage against us. Mike was very, very clever in countering this sort of thing.

How I helped create market pull through legislative action.

I was a very strong central catalyst for California's minimum-recycled-content newspaper law. It was one of the nicest things I've ever done.⁸

I attended a conference of paper recyclers in Sacramento. The problem was that used newsprint prices were too low. In some cases, newsprint was actually being buried to enhance the market by cutting supply. Garden State Paper's executives, among others, were talking about setting a minimum recycled content requirement for paper. Their idea

⁸ At this point Tania was on the staff of the California Department of Conservation (DOC), which also worked on other recycling while administering the California container deposit program.

was that this would enhance the market. That was the first element of my involvement in AB 2020.

Element number two happened when I heard Trish Ferrand telling about an equipment supplier who had been at a meeting where *USA Today* said they were not going to buy any recycled paper at all, ever.

Number three was that *USA Today* had just started publishing. Their big selling point was *color* in the newspaper.

GL: And they thought they needed a higher quality paper, right?

TL: Exactly. And since newspapers compete for advertising dollars, no newspaper publishers would be able to use recycled-content paper and still get advertising money.

The fourth thing was that the paper industry had just completed a ten-year cycle of investment in capacity. So they already had all the capacity they thought they would need for the next six, seven, eight years and they had no incentive to put in new recycling capacity.

It looked to us like those ingredients were combining to kill newspaper recycling. And AB 939 was going to increase newsprint collection, which was already struggling to handle the volumes it was taking.

So here's the problem. Let's get back to function as we try to come up with an answer. Do newspapers need color advertising? No, that has nothing to do with the function of a newspaper.

So I went back to California from these meetings with this gestalt. Californians Against Waste called a meeting of all sorts of people to suggest legislative ideas. I attended and got up to present this issue and the idea of increasing demand for recycled-content paper.

An aide to Senator Delaine Easton was in the audience, listening. One month later, a draft bill minimum content recycling bill was circulating at the Department of Conservation (DOC) from Senator Easton's office. DOC was proposed to

administer this bill, so it was up to us staffers to analyze the financial impacts and formulate our opinion of whether it would work and what we'd have to do if it did work. Over a few years, the mandate would rise to 40% recycled content, *if* it matched the quality and price of the competition.

I was not officially analyzing legislation. I was not supposed to. But I found out who in DOC *was* analyzing the bill. It was Pat Schiavo. At the DOC, people on different floors didn't talk to people on other floors as much as they talked with the people on their floor. But I went up and down. So I went into his floor to talk to Pat. I said, "Pat, there's this bill and we have some ideas. What are you going to do with it?" And Pat says, "Oh my God, I don't have time to deal with that. Besides, I don't think it'll work. So I'm going to say let's do a study first." So I went, "Pat, here's A, B, C, D, E, F, and G." And I said, "Do you want me to analyze the bill?" (Laughing.)

I wasn't allowed to do it. But I was on the phone a lot with the legislative aide. They would call me and say, "the small printers' association is worried about this, and the large printers' association is worried about that." I was right out of Garbage Reincarnation and used to dealing with the paper industry directly. So I called these people to talk with them. I got their concerns dealt with.

Pat Schiavo got on board and became a supporter. We brought the minimum content bill in for under \$200,000 a year administrative costs. We said the industry already had the information that we needed to make the cost determination and do comparative analysis. The bill didn't have to go into suspense for the budget, so we avoided Suspense Committee.

GL: That's a big deal in California legislative process!

TL: Right! Because things sit there until you decide you really do have the money to prioritize them and make them happen. And the minimum content bill passed and became law.

GL: Unbelievable!

TL: So then what happened was this: two years later,

the paper recycling capacity in North America had *doubled!* The volume being recycled was twice as much, because in order to sell paper into California you had to have 40% recycled content. Having minimum recycled content as an industry mandate took away the risk of making recycled paper, because you know somebody's gonna buy it. You know that *USA Today* is not going to knock you out of the water by refusing to use recycled content paper!

So we used regulation to make a level playing field. That was my first brilliant flash: "*This* is why you recycle!" That's my favorite thing in my life, I'll tell you.

An immensely rewarding career.

Recycling's been immensely rewarding personally. It has been a pretty safe thing to be an activist in – because you're fighting for the good.

GL: Motherhood and apple pie!

TL: Right. There's not that much opposition, except for the people who think other people won't do it, or do it well. It's been fun, and intellectually challenging. I've been constantly doing things that I hadn't tried before, and stepping up a notch to try to do them. I've enjoyed wonderful relationships, all the wonderful people to work with. The level of creativity and passion and integrity is almost indescribable.

Whenever somebody says "what do you do for a living," and I say "I'm a recycling coordinator," it's "Oh!" They just automatically raise the value of what they think I'm doing.

For me too, it's been financially rewarding, especially when I was hired to work for the City and the State. Public employment provides a good income, and it's got good benefits. I haven't saved much, but I have a retirement plan. Recycling people who aren't working for a City or County don't usually get that much.

GL: And were the financial rewards important to you?

TL: Yes, once I'd spent the trust fund (laughing).

Brenda Platt Interview

Brenda Platt (BP) graduated from college as a mechanical engineer. Two weeks later she went to work at the Institute for Local Self-Reliance (ILSR) as an assistant to Dr. Neil Seldman. Here is how she described ILSR's business model to interviewer Jon Huls (JH) in 2007: "ILSR is a 33-year-old nonprofit organization providing technical assistance and policy recommendations to governments, communities, and individuals. We work on recycling and waste reduction issues, but we also work on energy issues, and on rules and policies for all sorts of community matters. We promote home grown economies. We help people fight big box stores. We're promoting the carbohydrate economy as a better and more sustainable foundation for our economy than fossil fuels, hydrocarbons, or petroleum. So we advocate for change on many sustainability and material efficiency fronts."

As a child, I lived in Liberia, Iran, England, Trinidad, Tobago, and Port of Spain. I feel very fortunate because I have seen many parts of the world. I was five weeks old when my parents moved to Liberia, West Africa. From Liberia, we moved around a lot.

My dad worked for an international bank that lent to developing countries. As a child of six through eight years of age, we lived in Iran. After that I was in England for a year. But then we lived in Trinidad and Tobago. I was in Port of Spain for five years. Then my parents went back to Liberia.

I got to see first-hand not only poverty but also *real* culture and communities. When I think of Iranians, I remember all the artisans and all the things they were making. There was great copper work, and carpets, and the breads, and the peaches! There was a real community, and real culture, and real arts. There wasn't a lot of packaging and consumerism.

Whenever I would come to the States as a kid, which we did every summer, it was culture shock.

Reuse was common in the Third World.

I think my first awareness of recycling was actually more about reuse. So much of what we bought in those countries was packed in refillable containers. When we would buy a case of soda pop, it was always in glass refillable containers. When you were living in Africa and the Caribbean, you found that they weren't remanufacturing their containers. Instead they were taking them back, then washing and refilling them. It wasn't just the bottles that got reused, but the cases too. Every time we went to the store we brought the original case full of empty



Brenda Platt 2007.

refillable bottles and got a new case with full bottles.

My engineering classmates tagged me the "Flower Engineer."

My friends in college were all social activists and public-interest lawyers and what-not. When I was in mechanical engineering school, my classmates would call me the "Flower Engineer" because I didn't want to design the same stuff as they were designing.

One time in a mechanical engineering design class our teacher, Dr. Kaufman, told us to design a machine that would close Pampers boxes. The boxes came to the box-closing machine on a moving conveyor. I remember going to Dr. Kaufman and saying, “I am *not* in engineering school to design this kind of stuff. Can I please design something else?”

He said, “Well, what do you want to design?” I answered, “How about something like a bicycle bus. Something useful!” He said, “OK.”

The design I turned in was for a bicycle bus that seated up to eight people. It was enclosed. As a passenger, you could pedal at whatever speed you could manage. It was geared, so any effort would still contribute to the speed of the bus. That took care of the locomotion part. The bus still required a driver to take charge of braking and steering.

Even as a college student, I was very interested in exploring appropriate technology.

ILSR’s vision contradicts Waste Management’s business model.

I think the Institute for Local Self-Reliance has quite a unique lens on material recovery. We’re not just for recycling everything. We are, of course. But we’re also for keeping the materials and the value within the local community. We want the dollars and the resources to benefit local regions.

Our vision of recycling is *not* Waste Management (WMI) picking up the recyclables in a single-stream truck and hauling it 40 miles to their 1,500-ton-per-day “recycling” facility.

One of WMI’s new facilities in Elkridge, Maryland, is actually rated at 1,500 tons-per-day, so this is all too real. Elkridge is highly automated, and cross-contamination and outthrows are big problems. Today in 2007, they’re shipping mixed plastics and paper to low-wage countries all over the world for reprocessing, often by hand. Most of their recovered paper is going to China.

We want to see those same recycling volumes

that they are taking to landfills upgraded in local communities and sold by local people. We want to see the materials made into high-value products as near to where they were generated as possible. We want the bulk of the recycling jobs to stay here, close to where the resources are generated. We want to help local enterprises willing to work returning those already refined products to the local economy. This is what we mean by “closing the recycling loop locally.”

Neil pushed me into the public arena right away.

Neil Seldman was great at delegating parts of his job. I think I was testifying at public hearings against incinerators within my first two weeks of work at the Institute.

You had to sign up in advance. You would get at most five minutes to speak. At first I was scared. I’d tell Neil, “I can’t speak at this hearing! I don’t know anything yet! You know that I just got here!” And Neil would say, “Don’t worry, it’s only for five minutes. You know more already than almost anybody else in the world. You can do it!”

He wouldn’t come with me, because he’d be doing something else. I’d go testify in spite of my fear. I found he was right. It *would* be easy to testify, because it was only for five minutes. Also, in those days they’d *never* ask any questions.

JH: You literally got thrown into the fire!

BP: That’s what Neil did for me, yes. I was doing things I’d never done from the get-go.

Getting around the black box.

When we were fighting incinerators, we discovered that most staff people in charge of sanitation or public works just wanted to pick up the garbage and take it someplace. They also fix potholes, sweep the streets, and maintain public infrastructure.

But most had no experience marketing materials. Meanwhile, we were talking to them about business development and economic development and recruiting and training sales people. We were promoting making stuff and conserving stuff that you can sell locally. They didn’t have any experience

with that.

What they wanted was a black box where they could take the communities' garbage, put it in, and be done with it. That insight into their mindset underlay our search in the 1980s for an effective way to fight a lot of these incinerators.

That was why we promoted mechanical processing facilities in the early days. Doing so enabled us to ask the engineers why they would want to burn it all in a mass-burn incinerator when these mechanical processing plants have a higher diversion rate. Besides, we found, the refuse-derived-fuel (RDF) made by these plants burns cleaner. We actually *had* data comparing the emissions between refuse-derived fuel pellets and mass burn technologies. RDF results were *much* better because a lot of the bad stuff had been removed.

***After beating incinerators with mechanical processing,
We pivoted to source separation.***

Not that mixed-waste mechanical processing was a good technology, either. It wasn't.⁹

The mixed-waste composting facilities that were tried in Europe as well as in the US were projects that didn't work. Europe learned pretty quickly from their mistakes. I remember in 1987 going to a composting facility in Switzerland that had been a mixed-waste composting facility. It was not doing mixed waste composting anymore. I asked why they changed. They said, "That didn't work. That was terrible!" At the time I visited, they had converted to a segregated organics facility that was producing beautiful compost.

It was ironic that we were able to defeat a lot of incinerators by pushing other magic black boxes that didn't work. Once we defeated the incinerators, we'd come back in and say, "Now you don't really want to

9 At least one of these purpose-built RDF plants blew up in spectacular fashion when one of its shredders hit something explosive and flammable, probably a can of fuel. The plant was built by Allis-Chalmers using adapted mining technology, but it never worked reliably before it destroyed itself.

build this mechanical processing RDF plant *either*. We're going to do something else, starting with source separation."

We learned setting recycling goals too low was a mistake.

The 1980s saw a magic formula of a 25% upper limit to recycling being bandied about by many recyclers and activists.¹⁰ I remember when 25% recycling was our goal at ILSR. But it didn't work out so well.

New Jersey showed us how that low early recycling goal worked to *limit* recycling's growth. New Jersey followed our lead. But then, because they had capped recycling at 25%, they said they could pursue a 75% incineration goal. The result was that each one of the 21 counties in New Jersey had a plan for a waste incinerator.

But we intervened, saying, "You know what we need to do? We need to show that New Jersey can get well beyond 25%! If you're only targeting newspapers, bottles and cans, you're handling only about 15% of your discard supply. You'll never do better than that 25% recycling rate. You need to go after the yard debris. Go after the other big categories like discarded food. Go after the cardboard, the magazines. Don't forget the durables for reuse."

My first report on recycling record-setters was released in 1987. It was called "Beyond 25%." A few years later, after rechecking the early adopters and finding new record setters, the Institute published "Beyond 40%." Then the EPA funded me to write "Beyond 50%." We found a *number* of communities doing more than 50% recycling in the early 1990s.

The EPA wouldn't let us call it 50%, though. They said that the finding conflicted with the national recycling goal. That goal was only 35% at the time.

10 In California the conventional wisdom's magic formula was 35% recycling. That ceiling prompted the Northern California Recycling Association (NCRA) to put the then-radical statement in its bylaws that "Within five years of beginning a comprehensive program, most communities can dispose of from 40% to 75% of their discarded materials using currently available reuse and recycling technologies."



got to mandate participation, even to the point of imposing fines for noncompliance. I didn't find any record-setting recycling programs that were missing one of those two big, complementary motivators.

If you don't compost yard debris *year-round*, you're not going to get beyond 50%. And you've got to make disposal by recycling as convenient as disposal by wasting! If you've got weekly trash collection, you had better have weekly yard debris and recycling collections too, on the same day if possible. You've got to keep expanding the range of materials you handle. Those are some of the key concepts.

More fun, less stuff!

I want a planet that's livable for my kids and their kids and even for the seventh generation of kids. We have to fend off consumerism!

While we're meeting here at Blue Mountain Lake, New York, over in Naples, Italy, people are just piling up their garbage in the streets. David Morris of ILSR once said all factories and incinerators should stop building tall smokestacks that basically disperse the pollution to neighbors far downwind. Instead, the burn plant smokestacks should be short, so the pollution falls locally. That would force people to do better.

I don't think people have to sacrifice quality of life to

do this. I like the idea of "More Fun, Less Stuff!"

JH: Does consumerism imply happiness, like the commercials say?

BP: No. If people get depressed, often they will go shopping. They go to the mall and buy stuff they don't need. Some of the fashions today just make me *sick*. I walk down the street and see too many women who are wearing these shoes that can only deform their feet and their backs and their bodies. I don't get it! People are so unhealthy! If we can get people off their computers and their Palm Pilots and their Blackberries, and wean the kids from their video games –

Did this work involve sacrifice?

I remember my dad advising me, "Why don't you go work for some big company and earn a lot of money for five years? Then you can go do this

stuff, because you could have money to invest, or to retire."

But all I could think was, "I'm not going to prostitute myself?!" I know I could make more money elsewhere. But I don't feel compelled to make money.

JH: To do good work that you enjoy is the reward you were seeking?

BP: Yes. But you asked about significant sacrifices. I'm quite petite, I'm 4 feet 9 tall, almost. I've been at a computer and phone sitting at a desk for 21 years. I have chronic neck problems. I have often thought, "I need to quit this job in order to get away from the desk."

But it's hard to give it all up, even though it's breaking my body.

Educate for sustainability.

We should build gardens in the schools, and not feel we have to put a computer in every classroom. Have a garden in every school! And a compost site in every school! Kids should be taught to make their own paper projects in every school. We could teach math by explaining how recycling and waste

diversion works financially. We'd be *much* better off years from now if we made changes like these in our schools.

My daughter Heather is making me so proud! She has joined the Young Activists Club. She has taken up global warming as an issue. She has testified before City Council about banning styrofoam and providing free parking meters for hybrid cars.

It's all about the next generation, teaching them these values and ideas. Policy is important. "We make the rules, and the rules make us!" That's a quote from David Morris in his New Rules project. Let's use our tax system to give tax credits here and there to influence the way people spend money or not. In addition to getting tax credits for putting energy efficient insulation in their homes, people could get a tax credit for using a back yard composting bin.

There are so many rules changes we can do to get where we want to be. We have the technology, that's the exciting thing. Technological obstacles are not what is blocking progress.

2019 update from Brenda.

I ended up taking over as the parent co-facilitator for my daughter's Young Activists Club. Not only did we get styrofoam banned in Takoma Park, but also Montgomery County. Then Prince George's County (adjacent big county) and the District of Columbia followed suit. And just recently the Maryland legislature passed a statewide ban that is awaiting the Governor's signature.

Nancy Gorrell Interview

Nancy Gorrell brought to the recycling pioneers her uncanny ability to translate complex thoughts into pictures, poetry, even librettos. Her hundreds of illustrations helped teams of activists stop garbage-burning powerplants in Berkeley and far beyond. She delved into physics, finance, literature, and other disciplines for inspiration. She engaged enthusiastically in local politics, helping shift the public mood around discards from apathy to passionate engagement.

Little was wasted on our apple farm in Watsonville.

I was born in 1937 on a ranch outside of Watsonville, California. I lived there as a child with my parents, three brothers, and my aunt, uncle, and grandparents. Ten people. We grew apples.

The ranch was in a beautiful place. It had a creek bordering it. The creek had undeveloped wild places. I loved those wild places.

There was no formal recycling, but almost nothing was wasted. A woodshed had room for every piece of wire or stray nail. I saved those sorts of things and put each in its place. The whole family recycled in many ways. Food scraps were fed to the chickens and pigs. Just about every part of butchered animals was used, made into food for humans, animals, or the soil. We had compost heaps.

Even so, I suppose some things were hauled to the creek, sadly, to be dumped. But we minimized wasting, because our homegrown produce was canned in reusable jars. Manure from pigs and cows and chickens was used for fertilizer.

World War II came, and the need to recycle and reuse was essential to public health and safety, because most materials were scarce. There were paper drives. We saved string and metals. We learned more of the good reasons not to waste. We saved fats and foil.

You made your shoes last, because everything was rationed. Everyone wanted to help with the war.

After that war, in my junior year of high school, in 1955, we moved to Oakland, California. I graduated from college in 1960, then went to Europe for an extended visit. Although my focus was on studying and viewing art and architecture, I observed that Europe was less wasteful than the United States, having survived WWII.

Down the Yellow Brick Road to the Wizard of Fire.

I got personally involved in recycling in a big way when I met and married Mark Gorrell in 1982. He and Dan Knapp had been off-campus college roommates for years, and now once again they were



living under one roof – Mark’s home on Center Street just south of University Avenue in the Berkeley flats. Both were going through their divorces. Dan met Mary Lou Van Deventer at about the same time as I met Mark. Mary Lou lived in Berkeley and had worked for Friends of the Earth in San Francisco, and then the California Office of Appropriate Technology in Sacramento, as an environmental journalist.¹¹ Dan was busy seven days a week helping manage Urban Ore’s startup phase out at the landfill at the foot of University Avenue in San Francisco Bay. Dan and Mary Lou got married in 1984.

I married Mark, Dan’s longtime roommate. Mark and I and Dan and Mary Lou became fast friends, and did a lot of things together. Mark was a practicing architect.

11 Actually by 1982 Mary Lou had moved on to working on the editorial staff of Sierra Magazine at the Sierra Club. In late 1983 she became a freelancer whose main client was Urban Ore. Eventually she joined the Urban Ore staff.

I illustrate the fight over resources.

I did a lot of cartoons for our recycling broadsides. Mary Lou used many of them when she and Dan put out *The Berkeley Burn Plant Papers*, a compilation of anti-burn science and philosophy and economics and ethics and art. The *Burn Plant Papers* got published and widely circulated in the year before voters voted not to build the Berkeley garbage burner.

Then Dan asked me to do a cartoon strip featuring the Lone Recycler. He would call me up, and we’d just ramble on about the recycling movement.

My kids were on my case at the time about why I wasn’t doing more with my art before I turn my toes up and go off to wherever.

Dan’s enthusiasm was catching, and Mary Lou put in great ideas, and Mark too. It was a great, great, great working team. Mark put in horrible, horrible puns and jokes.

As a team we wrote “The Lone Recycler” as a comic book. Otto Bealaw – my name for him – was the mayor of Slobberg. There was an election in the story we wrote, which sort of followed what happened here in Berkeley. The story had some dirty tricks that were somewhat like the original as we lived it. Thankfully, in the comic as in real life, recyclers won!

There was a terrible burn plant. It was menacing, scary looking. It was a fearsome place, a fortress, a castle-like thing putting horrible chemicals into this lovely neighborhood. Inside was a lab run by a Dr. Frightenstein, who wore thick glasses and a crazed expression.

Slobberg becomes Wonderburg.

The Lone Recycler grew to manhood in a place we called “Slobberg.” One day he discovered this solid waste stream running through the town. He was fascinated, because it had many useful objects floating by. So he cast his fishing lure into it, and he

pulled out all kinds of good things. Then he made sure they find new homes, or get recycled.

The teenage Lone Recycler wonders why this waste stream exists. He is horrified when he goes into a store and notices all the over-packaging! He's especially shocked at these plastic coffins that poor, harmless strawberries were encased in at the time.

About 5,000 *Lone Recycler* comics were printed.¹²¹³ All but a few have been distributed. But there was never a second edition, in part because the incinerator issue went away after we beat it twice.

The politics changed from confrontation into the impasse we have now.

Surprise! We're building a burn plant in Berkeley's front yard.

We were all quite surprised by the seemingly sudden finality of the decision to burn garbage in Berkeley. A new mass-burn plant to replace the landfill was proposed, discussed, and approved all in the same meeting by the Berkeley City Council. No comments from the public were allowed. The decision to procure the plant was unanimous.

It was December of 1980, the same month the Lane County shredder plant in Oregon struck something – probably a can of gas – that exploded catastrophically. It was never to reopen.

Shocked by Berkeley City Council's action, we four friends joined forces with people from all the other recycling entities. That included the Ecology Center, which collected recyclables from residences, and the Community Conservation Center (CCC), which ran several dropoff facilities and cleaned up materials and marketed them for the City. All were threatened by Council action.

12 At the behest of Jack Barry, Richmond Environmental Action in San Francisco paid to print 5,000 copies of *The Lone Recycler* comic. The last big batch went to the Public Broadcasting Service, who used the comics as part of a promotional campaign to sell their associated stations a documentary they had made on recycling.

13 Nancy now says, "The Lone Recycler is a cultural artifact from a tumultuous period in Berkeley history. Dan thinks it's a natural for a musical or an animated movie. He wants me to do a libretto for it. It might really work."

And we set out together to stop the burn plant.¹⁴

How Berkeley Citizens Action became a force in Berkeley politics.

I was on the steering committee of a powerful citizen's group called Berkeley Citizens Action (BCA). We decided to join with progressive BCA candidates whom we had persuaded into changing their minds on burning garbage and supporting us instead. They were a minority party at the time.

We helped BCA politicians by writing position papers and creating posters and such. Mark wrote for them. I illustrated their newsletter. I illustrated the *Berkeley Burn Plant Papers*, a substantial collection of articles, excerpts from books, scientific reports, and cartoons, all assembled and put out by Urban Ore. The Ecology Center Newsletter published my cartoons too. Sometimes we passed out campaign literature with our pro-recycling-anti-burn-plant literature at the same time. "A picture is worth a thousand words."

BCA and the people of Berkeley won. The vote total on the initiative was 63% against burning. The burn plant was stopped, only temporarily we feared, to "give recycling a chance."¹⁵ Voters elected a new, more sympathetic City Council, thanks somewhat to our help. Now BCA had a supermajority. The BRG - Berkeley Recycling Group – had demonstrated that it was a force.

Berkeley does dual-stream, not single-stream: dedicated recycling staff make it work.

I became associated with CCC, and my husband Mark became heavily involved in Ecology Center. He lived long enough to receive the first manufactured split-cart designed for automated

14 The mechanism for action was a citizens' initiative. The small group recruited more, and together the activists spent hundreds of hours gathering signatures to block garbage incineration with a five-year moratorium. It went onto Berkeley's ballot in November 1982.

15 Burning garbage was finally prohibited two years later by a second initiative that also set a 50% recycling goal for Berkeley, five years before the State's AB939. The available fuel was shrinking.

curbside pickup. The new bin design puts paper on one side and containers – cans and bottles and some recyclable plastics – on the other. When tipped into the truck, the truck’s split-bin design mimics the curbside split-bin design. This keeps paper from being ruined by broken glass, thus increasing both materials’ value. Broken glass mixed into paper is often called “sparkle pack.”

The City has sometimes insisted that we accept not very recyclable things. This has caused endless trouble. On the other hand, because of the split-cart, we do have cleaner materials. So while other recycling centers that are not as dedicated or organized have huge bales of crap-plastic sitting around that China won’t take, ours are still moving.

Like other recycling innovations, Zero Waste in the US started in Berkeley, imported from the Australian Capital Territory (ACT).¹⁶

Berkeley has helped make huge advances in the recycling world. Citizens’ action stopped the incinerator plan. Later, we were among the first cities in the US to pass a Zero Waste goal. Dan and Mark took the lead: they worked for months writing the text of a resolution to set Zero Waste as a goal for the City. Council Member Kriss Worthington was working with them.

They thought their resolution might pass as a voter’s initiative, which we had used successfully before. But then Mark stopped by the Mayor Bates’ office one day and said, “We’re calling it ‘solid waste.’ It sounds like something you want to flush down the toilet. So let’s take the city’s goal to Zero Waste instead, so there is nothing to flush. Let’s set a Zero

16 Dan and Mary Lou had been using the term Total Recycling for years, and Dan had developed a list of 12 master categories that described all of the discard supply as marketable resources. In 1995 Dan was hired to speak about them in Sydney, Melbourne, and Canberra, Australia. From the Australian capital Canberra, which manages its own territory, he brought home the text of a parliamentary resolution then being debated that called for a national goal of “No Waste by 2010.” It was the first Zero Waste goal in the world when it passed in 1996. By then the idea of Zero Waste had spread widely from Berkeley via the then-new internet.

Waste goal for the City.” The Mayor asked to see the resolution. After reviewing it he said he could get it passed by Council. He did what he said he would do, and the Berkeley Zero Waste Goal passed unanimously. Dan and Mark made that happen.

Ogres and trolls.

I took a job at the Oakland Child Care Center in after-school daycare. I knew how to do that. Before my marriage I learned on the job to earn money. Then I did childcare fulltime with my own two kids and their many friends. I brought a lot of my art work into projects with those kids.

Later I found work in the Albany YMCA’s Kid’s Club. They had an afterschool daycare site at every school. I wrote plays in which the kids were gods and goddesses. We made a jillion togas. Every kid got to be a god or goddess. Later my plays featured Mother Earth, and there were ogres and trolls. All the bad boys of my group wanted to be ogres and trolls.

It was so much fun to watch these kids come out and sing the songs I wrote for them.

“We’re the ogres and trolls and we’re bad, wicked souls.

We pollute and chop trees. Endangered species? Oh-pu-lease!

Clean water and air? Shucks! We really don’t care.

We’ve got money on the brain so the heck with acid rain!”

Acid rain was big back then.

One play began with a kid who was Perseus – we called him Percy for short. He was reading about mythology and earth science and environmentalism at the same time. A dream mixed it all up and the disturbing parts didn’t go away when he woke up.

But the mythology gave him a way to do something about it. He woke up and decided to prevent bad things from happening. He called in the gods and goddesses. Thor had his lightning bolts; other gods had other powers. All came together with their special skills and together they saved Mother Earth.



Kathy Evans, mid 1970s.

need service fees just like wasting gets, but Public Works doesn't like us asking them for money they get from waste fees. And so once again they are thinking they would like to replace us.

They keep changing staff, too, but then they hire yet more people unsympathetic to our kind of clean-stream recycling. One of their latest new hires is still calling it "solid waste" instead of "recycling."
Recycling is replacing solid waste, not the other way around!

They're probably going to spend more money on somebody else to replace us, and then come back to us when it doesn't work out.

But we don't know!

If all politics is local, adaptive politics is the name of the game.

You know, at first I didn't think I should be recorded for the recycling archives because what I did was not really part of the recycling story where people rolled up their sleeves and got the job done. But I WAS part of it.

When I was on the steering committee of Berkeley Citizens Action, for example, we helped put some of the people in City offices who then became State Legislators. We helped Loni Hancock and Nancy Skinner with their elections year after year. Once in power, they helped us, and we helped them.

It's very difficult now. What's happening with our

national politics is truly frightening. So we just don't know where we're gonna go, but we're hangin' in there!

I think people in Berkeley are smart enough to try and keep the system we've built, but we do have to work the politics constantly. That means working with the electeds. Because I was on the BCA Steering Committee, I did have contact with these folks. We did pass out their flyers, and they passed out our flyers and spoke to our issues, and then they followed through once they were elected.

So adaptive politics is an important part of recycling. The City has big mood swings depending on who is elected. If the electeds and staff are hostile to you, you can't exist. So you have to make friends.

Which doesn't mean that you have to abandon your goals, what you hold dear.

If you work inside the bureaucracy, stand up against things that don't make sense, you'll be fired. But if you go for a little bit of what you want, then maybe you can get something through. Sometimes it is more the old-style, middle-of-the-road approach: no big lefty stuff right now, it's too dangerous!

Finally, don't expect somebody else to do it for you. Just jump in and do it for yourself. Anybody can do it. It feels good, and don't miss out!

Kathy Evans Interview

Kathy Evans (KE) was majoring in biochemistry at Cal Berkeley when she fell headlong into the recycling movement. With an affinity for problem solving and a strong work ethic, she rose from managing the Ecology Center bookstore to running two nonprofits that eventually handled all residential and some of the commercial recycling chores for the City of Berkeley. Sometimes she drove the trucks, sometimes she crawled under and fixed them, and sometimes she did the books. Berkeley's recycling history was full of tumult, and Kathy was there on the front lines as the recyclers battled for respect and a fair shake from a City with vast mood swings.

Susan Kinsella (SK) interviewed Kathy in 2018.

I was just hanging out in Berkeley; Earth Day passed me by.

SK: What events led to your outsized role in developing the recycling industry?

KE: Nothing in my background was related to recycling. I did spend a lot of time in Berkeley as a student and craftsperson. I graduated in 1969 from the University of California, Berkeley with a degree in biochemistry. I had a parttime work-study job in the biochem lab, because that was my major. I loved being in the field. I assisted graduate students with their lab assignments, mainly.

Otherwise I was just hanging out in Berkeley when recycling began, making stained glass windows and stained-glass trinkets. To make a bit of extra income, I took these craft pieces to touristy places like Fisherman's Wharf to sell them. I was totally oblivious to Earth Day 1970.¹⁷ I don't know where I was or why I missed it, but somehow the event passed me by.

Being an early adopter has its benefits.

I got connected to recycling because my boyfriend at the time needed a place to do his conscientious objector service, and he had found work at the Ecology Center.

Ecology Center started up in 1969, but the directors incorporated it officially on Earth Day 1970. I came into it in 1971. At that time the Ecology Center was mainly staffed by people who, like my boyfriend, were performing their conscientious objector service obligation. So I was hanging around there a lot.

Eventually they needed a bookstore manager. So I became the bookstore manager, which at first was an unpaid position. Not long after that, I got onto the board of directors by write-in. It was such a newly formed membership organization that you could do things like that. That's how it all began.

¹⁷ The first "Earth Day" was officially called the First National Environmental Teach-In by most who celebrated it. The Teach-In happened on April 22, 1970. It became widely known as Earth Day the next year, in 1971, and has remained so ever since.

We recyclers had support and opposition from the start.

When we went and lobbied the City Council, that was my first brush with politics. We already had opponents on Council. I think it was Councilman D'Army Bailey, one of the new Council members, who said "I'm not giving all this money to white hippies!"

We responded by hooking up with a group called Center for Environmental Symbiotics. It was run by a black architect who was mainly interested in alternative energy. The Center for Environmental Symbiotics opened up yet another recycling dropoff on San Pablo Avenue, which turned out to have a short life.

So now there were four groups doing some part of the recycling work, all with completely different goals and interests. This began a two-year period of incredibly intense meetings as we worked on clarifying the relationships! We jointly created a new entity called the Solid Waste Reduction and Recycling Project. This was a new separate nonprofit that we created to receive and manage money from the City.

Ecology Center took on residential curbside; CCC took over the dropoffs.

In 1973, Ecology Center started the curbside pickup program. It was limited at first to collecting and selling discarded newspapers. We took on some of the employees from the drop-off centers, thinking maybe that newsprint volumes would go down with the advent of curbside. It didn't go down, and recycling expanded instead. We all ended up working together trying to manage the growth.

City funding supported the Ecology Center's residential curbside program, but for the most part at first, the dropoff center's workers were paid from the money that we earned from selling the materials.

After two years of City funding for curbside, another new nonprofit organization, Community Conservation Centers (CCC), was formed to consolidate management of the remaining dropoff operations that weren't included in the curbside

program. I think the reason for the new business structure was that the drop-off operations were just kind of falling apart for lack of staff interest. Maybe they were just flaky.

We were all part-time, poorly paid. Even so, we all had our own ideas about what was important.

Closing the landfill, jockeying for position at the new transfer station.

CCC had suffered an upset in their management staffing. So they hired me to be the manager of the combined dropoff-buyback-processing system as well as the curbside program. CCC's buyback started operating in September of 1983. The new transfer station opened shortly after that, in October of 1983.

Voters had rejected the burn plant. The day the landfill closed for good, Urban Ore moved onto the large vacant space left by the missing burn plant.

All three private recycling and reuse contractors were now on the same site, an arrangement that has persisted through many changes to this day in 2018.

Somehow – already by that time – the City was after us.

I remember Ariel Parkinson sat down right next to me at a table, one of several that City staff placed on the clean new hardened concrete transfer station floor before it had any garbage dropped on it. City staff hosted this little lunch celebration for everybody, with food and drinks and speeches. Ariel sat down next to me and started telling me how bad CCC was.

All three organizations had opposed the incinerator. But at that moment CCC was taking the brunt of the political flak for our collective stand.

SK: Even though they still wanted to put a burn plant there.

KE: Right. The burn plant backers hadn't given up, but they didn't want just then to kick us out to make way for a second try. They were deeply angry at all of us. Meanwhile, City Council had gone from unanimous consent to being deeply split 5-4 on the

issue.

But there was heavy political and legal flak that continued hitting us for many, many years. It mostly came from the people who were furious that we had helped the voters say no to their burn plant. Other political foes attacked us.

All this began not long after we opened.

City moved to replace CCC with a competing business, CCC said NO.

City staff said they had to organize a competition for CCC's business. This put all the recyclers on edge. They issued a request for proposals and got two, so there was competition. Now CCC was placed in mortal danger. This happened right after CCC had celebrated all their good work getting the baler and the State grants for Berkeley recycling.

Then the Solid Waste Commission, which had on it some of the people who were angry over the burn plant defeat, voted to give the contract for CCC's recycling center to another business. This for-profit company was run by a paper broker. As site manager for CCC, I had been selling newspapers to this operator for a while, so I knew his operation pretty well.

This took the Recycling Wars to a new level. The City told us to get out and we at CCC said no, the process was unfair and we won't go.

Sabotage! The infamous City break-in strikes at the heart of CCC's recycling operation.

It was poor Louis Arnold from the Solid Waste Division who was given the task of disabling the baler. He was a nice man who worked as Refuse and Recycling Supervisor for the Public Works Department.

I wasn't there when the deed got done. I found out right away from Jim Liljenwall, who was later to become the City's first Recycling Coordinator.¹⁸ Jim called me up and said, "Kathy, the City people took a

¹⁸ Actually there had been previous recycling coordinators, including the one who had been promoting the incinerator, who left for another state after the plant was rejected by voters.

part out of the baler!” And they did, they came into the site, unauthorized, after hours.

I had no idea at first what they had done. It was this big fancy baler, nearly new and pretty complicated.

I knew some people to call who knew the baler better than I did. Joel Witherell from El Cerrito worked in Parks and Recreation, but he was a strong recycling advocate and served as recycling manager within El Cerrito. It was Joel who arranged for CCC to take over the buyback processing equipment like the can conveyor and of course the baler. He had a handyman who helped him with the mechanics and maintenance.

So I went to El Cerrito to talk to the maintenance man. He had the plans and manuals, so I brought them back to the baler. I didn't know what the City of Berkeley people had done, but I could see where the part was missing.

“What do you need?” he said when I called him. I told him what the plan described was missing, and he said, “Oh, yes, that's the main brain.” It was an electrical part that the baler could not run without. So he came to Berkeley and looked at it. It was an expensive part, costing about \$1,000. He went out in the morning after the breakin and got the part and installed it.

And the baler was working again right away. Then we learned at that moment that City people were at some hearing in Sacramento, the State Capital. They were telling the recycling staff there that CCC was not operating because we didn't have an operational baler anymore.

So we had to call them to say, “Hey, we ARE operating!” I know – it's hard to believe!

So we won that part of the Recycling Wars.

The City escalates the conflict.

Then the City put their rolloff truck up on blocks so that we couldn't use it. We had been getting roll-off truck services from the City for years, but they ended that service abruptly, with no replacement.

With no access to the City's roll-off truck, I couldn't move the bins that we owned. We managed to get Industrial Carting to bring us some of their bins and place them in front of the other bins. They would come down with empty bins from Santa Rosa. Then I'd jump into the truck and haul full bins wherever they needed to go. That was really a hard time.

The situation was resolved in an interesting way. After CCC got our eviction notice, Pam Belchamber and a CCC attorney came up with an unconventional strategy. CCC was a prudent money manager. It had a reserve fund with a fair amount of money in it. CCC's lawyer was young, smart, and aggressive.

At the time, the City was suing to get us off the site, and maybe to get possession of the baler and processing equipment. CCC's new lawyer advised the board that the best defensive move we could make was to file for bankruptcy. That would put the whole conflict in federal court. The case would then take longer to adjudicate, giving us more time to do political work.

Then CCC one day announced – I'm sure they'd been doing a lot of work costing this out – that they were purchasing a roll-off truck and some boxes from Industrial Carting. So that's what they did to get rid of their extra money. Next, they filed bankruptcy. That was the lawyer's idea.

Sure enough, the bankruptcy strategy worked! The City had to cease and desist bothering us, temporarily. But we did get some relief for a little while.

Vindicated: the voters say no to the pro-burn majority party.

The legal case took a long time, as predicted.... The conflict over the City contract finally did go to trial. And we did get an eviction order for a date certain.

The eviction date was right after a general election in which four of nine City Council seats were being contested by two local political parties, Berkeley Citizens Action (BCA) and the All-Berkeley Coalition (ABC). ABC was the remaining pro-incineration faction. Going into that election, there was a 5-4 split on Council with the ABC faction in

control.

Everyone knew it was possible that we could get a pro-CCC majority for the first time. Our case had been in the papers for months. Lots of duelling passionate Op-Eds were written by different people. The court of public opinion seemed to be going our way.

The contract dispute was a big issue for all the candidates. The election was on a Tuesday. I remember the eviction date Alameda County set for CCC was right AFTER the election in the same week, on a Thursday. It was that close.

The eviction never happened. All four of the anti-burn and pro-CCC BCA candidates won! Now the BCA progressives owned an 8 to 1 majority on City Council. So we went and camped out on the site until finally the old Council agreed they wouldn't try to kick us out, because they were a lame duck Council that had just lost its majority.

The new Council majority voted immediately that we wouldn't have to move. They passed a resolution telling staff that the City processing contract would continue, with CCC at the helm.

Tailwinds and headwinds.

We had powerful people who supported us, like Loni Hancock and her husband, Tom Bates. Loni was on the City Council and Tom Bates was in the State Legislature. But the City Public Works Department never gave us the support we deserved, ever. They still, to this day, don't appreciate what they have, what they've had for all these years in recycling.

But some of them were strong supporters of the organization even if they didn't want to come right out and say, "We've got the best recycling program."

We expanded and improved service with help from the State.

We got money from what was maybe the first round of the grants from a statewide program called the Recycling Market Development Zone (RMDZ). These were economic development grants. The RMDZ had so much money to grant organizations like ours. We really needed it to adjust to the

expanded site.

Our application was funded. That was how and why I got hired to work on the expansion plan. The capital infusion was a lot of money, almost a million dollars. Both the State and Berkeley could meet their goals with its help. It was going to let us build this new building with more capacity for processing and bale storage in the middle of two buildings we already had.¹⁹ Plus it let us come up with a new design for a second-generation curbside truck, which Ecology Center needed in order to expand its routes and start taking other materials.

So that was how I got to work on that project, and see it through to fruition. It's lovely and rewarding to see how things work after you make the commitment to build anew. It was pretty exciting for me personally, to do that.

We survived and even prospered, but all around us opportunities were being lost.

Our whole view of reality was changing. We didn't yet have the idea of Zero Waste, but no waste was what we thought was possible. Our whole goal even then was to replace garbage collection with a new system that would handle everything as a resource, not a waste. It was some sort of large comprehensive resource collection system that we had to build.

Ahead of that, even from the beginning, because of Ecology Center workers and Cliff Humphrey, all of the recyclers I knew were all about not using things wastefully in the first place.²⁰

Now, in 2018, it's so frustrating! What recycling has become in almost fifty years doesn't make sense anymore!

¹⁹ The City of Berkeley workers started commercial curbside collection at about this time. Picking up recycling from businesses would add a lot of new tonnage to what the Ecology Center was already collecting residentially, so the processing operation needed much more space.

²⁰ That principle of not using wastefully in the first place came to be called source reduction.

We need local manufacturing based on clean supply.

I don't know that it had to go this way. I can see why business thought it had to be this way but it makes a whole different world for us recyclers. There's almost NO local manufacturing based on clean supply in the USA. Setting up local end-use markets all over would be SO much more sustainable. You don't have to have a bottle-filling plant in every community, but there should be many more than there are.

It just amazes me, the transportation by ship to distant ports. It's true that the recyclables go back to Asia on ships that would be empty otherwise. Still, I don't understand the economics of the global transportation economy. I can't see how it could possibly make any sense. It's got to be one of the biggest externalizations of costs. We're all paying for it in different ways.

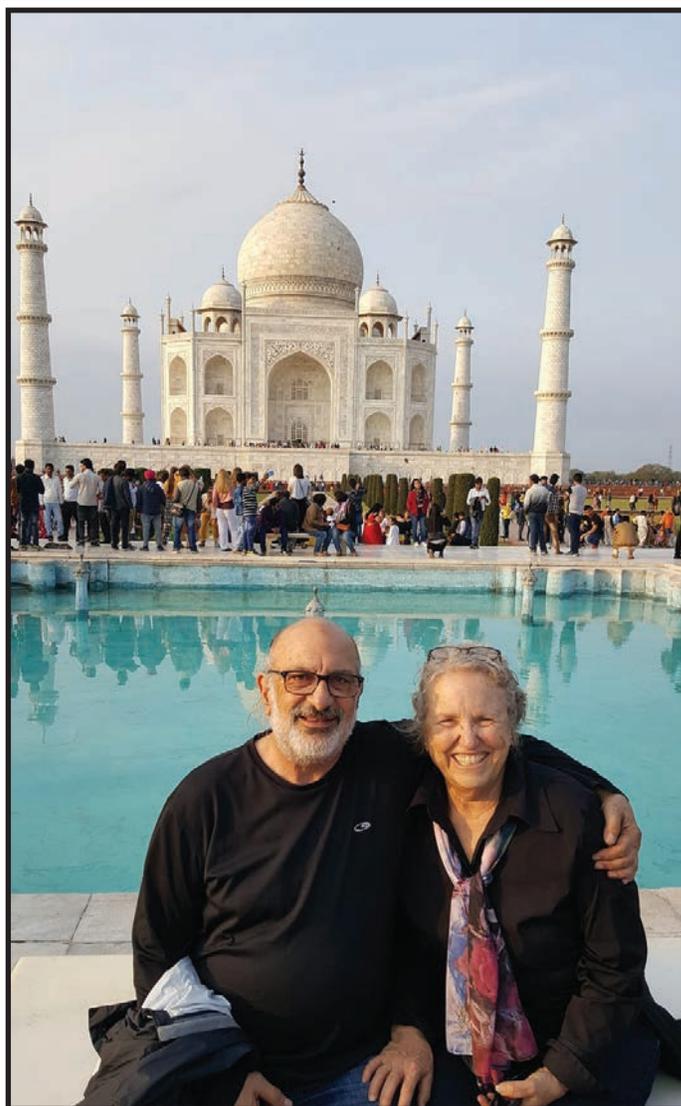
Clean versus contaminated.

When I was still working for CCC, but not for the Ecology Center, there was a lot of pressure coming from the City to change over to single-stream, just like all the big companies around us were doing. I'm glad that the Ecology Center held firm and said no, dual-stream was the way to go. At CCC, I was right there next door to Ecology Center, so I know all the people that were involved in that discussion.

Dual-stream is so much better because it causes far less contamination. Fibers and containers are kept separate. The way things are going now, I think maybe the City will continue to support dual-stream. They're still thinking about not doing it. But I think dual-stream is the only thing that's keeping things afloat for Berkeley recycling right now.

It still drives me crazy when I go back into the recycling building and look at the paper that's come off the sorting pile. It's still got food containers in it. It's not that much contamination.

But our material is much better than the other stuff coming from single-stream facilities. It's such a shame that they all took that option to mix things before separating them. Now they can't move their materials anymore. They're stuck.



Rick and Debbie Anthony 2019.

What I loved about the work.

SK: Kathy, you always had so many things to learn. You were managing a business, you were designing and building the collection trucks, you were managing employees and volunteers, and it just kept expanding.

KE: It did, it did. I loved it for that. I loved it when we were three in a row, the CCC buyback, and Ecology Center, and Urban Ore. I could just walk across the recycling yard and go look at all the wonders at Urban Ore; take a break from the office or driving a forklift. I ended up doing the paperwork at night and doing the operations during the day.

You could always, ALWAYS, be doing something different every so often. You wouldn't have to sit at your desk all day. At least, I never did. You could do all kinds of different work.

SK: Did you feel like you had to make sacrifices?

KE: I did make sacrifices, sure, but I did it willingly. Many a relationship bit the dust because I worked so much.

Big things can still happen.

I have to be hopeful! But it could be awful, too.

A lot of good actions could develop around responding to climate change. And maybe in the same way as we all got on the anti-landfill bandwagon, **we can get into doing better with resource handling here where we live. If enough people get into believing that that's something they want to work for, then big things can still happen. You can come up with numbers that show how shipping recycled commodities all around the world is not a good idea.**

SK: There's a lot of focus on greenhouse gases right now.

KE: That's where the hope lies, yes.

Rick Anthony Interview

Rick Anthony (RA), of Richard Anthony Associates, is a dealmaker and co-founder of groups, forming organizations out of scattered collections of people going the same way. The organizations he forms often become heavy hitters, including the California Resource Recovery Association; Zero Waste International Alliance; National Recycling Coalition; and Zero Waste San Diego, to name only the most prominent. He has worked diligently and fruitfully with most of the recycling pioneers in this collection. This interview was conducted by David Tam (DT) at Blue Mountain Lake Resort in 2007.

Growing up, organizing people was my default setting.

RA: I was primarily an organizer from elementary

school on. I mostly organized talent show skits. My parents were union organizers in the 1930s. I heard union organizing rhetoric every day at home from an early age. A group of us students tried to talk about civil rights. I organized for the Red Cross. I was working with people at halfway houses. Then I went to college and watched the war, watched people getting drafted. Of course I knew I was going to get drafted too.

I thought the war was a mistake. I became an anti-war activist and got into the experimental college at California State University Long Beach. I was doing creative writing about lots of different issues. We put together writers' workshops. We were publishing free poetry and free art. We'd publish anthologies with our work and pass them around.

About 1970, I helped organize a group of anti-war activists and minorities. We campaigned to take over the student elections, and take control of what was then a \$2 million dollar student budget. Right as our campaign got underway, the US Air Force bombed Cambodia, and US soldiers shot students at Kent State. It seemed like every campus went on strike after that. Although we didn't win the top seats, and I didn't get the treasurer position, all the minorities won. We took over the student body.

Hippie no more, but still organizing.

The next year, we took *all* the seats. I got married, and Debbie, my wife, got pregnant. I needed a job. I couldn't be a hippie anymore. So I went to Carlos
Rick Anthony and Pal Mattensson 2019.



Naveas, the student body President, and said, “Can I have a job?”

And he said, “I’ve got one job left that you might be able to do. I have this recycling center that was started on Earth Day. The organizers are gone. The volunteers aren’t working. People keep bringing materials in. The administration is on my back. Either you clean it up and make it work or you figure out a way to shut it down.”

“I’ll pay you a buck an hour to start. Shin Hori is the manager. You’re the assistant manager; there’s two of you.”

I had not a clue what I should do. So Shin and I went down to the recycling center, and sat there watching for about an hour and a half. What we saw was faculty wives coming in Cadillacs and students coming in old vans painted all over with flowers and such. They were there putting paper in paper bins and aluminum in aluminum bins.

Being a writer and a poet and political scientist, I asked the question “Why?” Shin was a business major. His dad was a gardener. My dad was a mechanic. We were both working class kids. Shin asked the business question, “What’s it worth?” There was a paper strike going on in Canada, so prices were up to \$100 a ton. We sold our first full paper bin for about a thousand dollars. Shin said “get more bins.” I said, “What’s this all about?”

That was my first experience of recycling. I actually got a job that brought in more money than I was paid! (Laughing.)

I went down to the recycling center with my manager and we observed the job together. Then we figured out what it was worth. From then on, it was a business idea.

Early recycling balanced physical and mental: extreme joy!

DT: Have you been more active on the policy and programmatic side of recycling or the physical side of recycling, or both?

RA: This is the extreme joy of this profession! When I walked into recycling, there were very few of us doing it. It takes a lot of exercise to sort a glass bin, or clean a newspaper bin, or pull carts and boxes around for people to use. I used to say it was a perfect job because I could do four hours of heavy manual labor, and it was healthy outdoor work.

But then we’d go up to the Associated Students offices and for four hours we would do the bookwork and the propaganda and the social organizing. And *literally*, I could be a public relations specialist. I could be an accountant, I could go sit on faculty committees and do planning. I could sit down with people and do organizing.

DT: Okay, so it was both mental and physical.

RA: Very much both!

Was it a social movement? Yes!

I was a political scientist in my studies and in my mind. I saw a *huge* social movement coming to life right in front of me. It was about people from Republican to Democrat to radical to conservative to hippie. Even the *richest* people saw this material as their possessions that were valuable. They were upset that they had to put this stuff in the garbage.

They wanted to put the newspaper in the paper bin themselves. A lot of people would come in their Cadillacs and leave me bags of mixed stuff. And when I’d come out to protest, they’d say, “But I’m giving you this valuable material!”

I became an engineering company analyst who wrote manuals and plans for the EPA.

The analytical part came next for me. We lost the election at Long Beach State after four years of being in power. I went to work for an engineering company doing research for EPA. I had to learn how to be a technical writer, which was really difficult for me. I had to learn how to analyze data and work closely with technical people.

Penny Hanson was a very influential person in my life. She was an EPA contract administrator, a recycler out of Baltimore. She gave us money for jobs that opened up information on recovery and

resources from both commercial and residential areas. Through her grant, I did the office paper recovery manual for EPA. It is still used today. Also from her grant, I did the planning, implementation, and monitoring for one of the first rural curbside programs in California. It was in San Luis Obispo.

The 12 Master Market²¹ Categories created a path to Zero Waste.

For SCS Engineers, I did the waste composition and market analysis for landfill projects. I was the one to go into the landfill to do the sorts. I tracked recycling diversion and sales.

Dan Knapp really turned me on to the 12 Market Categories. Dan was a PhD sociologist when he was hired to go salvage stuff at the Berkeley landfill. Dan did sociology out there while he scavenged along with the seagulls and a few staff.

What he did went beyond anything we were using.

And what do sociologists do? They group things into categories. So he mentally sorted what he was seeing from around 400 vehicles dumping loads every day. These materials coming in to the landfill were mostly stuff he thought could be sold if processed correctly, which is why the categories are called market categories. What he did was he came up with 12 distinct groups of material that described everything in a typical landfill.²² He imagined that

21 The 12 categories were originally called “master” categories. It was Rick Anthony who came up with “market” as a substitute. It stuck. Mary Lou Van Deventer commented, “It clarified the developmental thrust.”

22 At the time, the number of categories used by engineers recognized only a few recoverable material flows, sometimes as few as three: cans, bottles, and paper. This left out many much much larger categories such as plant debris, wood, reusable goods, ceramics, and soils. The 12 Master Market Categories[®] have remained remarkably stable since the first iteration was unveiled at the Governor’s Conference on Recycling in Charleston, West Virginia, in 1986. They are master categories because each one can be infinitely subdivided, leading to the prediction that the more subcategories there are in the trading platform, the more money the system can generate. At

some specialist businesses – a composter, a paving and grading company, a soils company – would be able eventually to collect, process, and sell everything in each category.

When you start to look at Zero Waste recovery, that was *just* absolutely significant.

We recyclers launched CRRA using conferences and forums.

We didn’t have computers yet. We had telephones, letters, and then faxes. That’s how we organized statewide conferences and forums.

DT: Was this the genesis of the California Resource Recovery Association?

RA: Yeah. 1974 was the year when the Southern California group filed with the Secretary of State to set up CRRA as a statewide nonprofit. Then we flew up to San Francisco. We southerners met the northerners at the Ecology Center in Berkeley. We brought Hal Conklin in from Santa Barbara. Cliff Humphry was there, and Margaret Gainer came down from Arcata.

The first CRRA board was Maggie, Cliff, and Kathy Evans from the north, and Gary Peterson, myself, and Bill O’Toole from the south. We organized the first CRRA conference in Santa Barbara in 1976. We recruited around 300 people from all over. Another big group that came in to that first CRRA conference was the first staff and appointed members of the State’s Waste Management Board. They had just formed with a mandate to come up with new recycling policies for California.

The National Recycling Congress begat the National Recycling Coalition.

I helped organize the National Recycling Coalition. It was the first recycling group to claim it represented recyclers from all over the USA. Neil Seldman and I had been wanting to create national forum for national recycling policy.

We had a project together in Grand Rapids,

Urban Ore, the number of reuse categories that the point of sale system sees is about 240.

Michigan, in 1979. There, Neil told me that he had gotten money from the National Science Foundation to do some research on what was going on in recycling. He wondered what we should do with this money.

And I said, “Neil, we need to get together all the information on recycling in the country and put some anthologies together. If we do that, we’ll identify who’s who working on recycling, and from there we can put together a national recycling policy.”

So Neil pitched it to the NSF. They funded the project, which was called the National Science Foundation Recycling Research Agenda Project. We put together two meetings. The first was held in San Francisco in the fall of 1979, and the second was in Washington, D.C. that December. They were small, less than 50 people. But each drew a core group of outstanding activists and hands-on people.

From there we actually wrote the national research agenda. We expanded the list of the people who had attended, hoping to convene a much bigger crowd. I got Fresno County to put up \$10,000 to sponsor the event. I got the CRRA board to agree to be the host. We held the first National Recycling Congress in Fresno in early 1980.

The first Congress happened in 1980 – on Earth Day, April 22, 1980! We had Denis Hayes as a plenary speaker. Denis was a celebrity environmentalist, one of the founders of Earth Day.

And from that organizational beginning, with help from Gary Liss and Clifford Case – an attorney from New York who filed to incorporate – The National Recycling Coalition was born. We formed the coalition from that first congress in Fresno. Every meeting of this coalition is still called a congress. Although not all the founders agree where the coalition has gone, we’ve been part of it from the beginning.

I’m taking my political platform around the world.

RA: The other big organization I helped create around this time was international. I was acting globally, regionally, and locally all at the same time.

Within CRRA we were saying, “Look, we’ve got a California presence, and we’re drawing people from the whole USA. But we’re also pulling in people from other countries. There is an international side to this: it is all about recycling and resources everywhere, and it is global. Somebody needs to take the lead about figuring out how to get that organized.” (Laughing.) So I said, “I’ll help, I’ll help!”

I wanted to be a world traveler! I set myself up in 1992 for this role when I entered a call for papers and got accepted for an international conference in Geneva, Switzerland. I met a bunch of people over there and got stimulated, and so I took it on.

Together we created the Zero Waste International Alliance (ZWIA). It’s made up of 400 members on the listserv now, in 2007. More keep joining. There are at least ten each from Australia, New Zealand, England, South Africa, Philippines, France, Belgium. We did an international dialog meeting in San Francisco in 2003 before the NRC conference. The next dialog will be September 2 in Davos, Switzerland.

So organizing nonprofits is what I did in those years. All that I worked on are nonprofits. As I get older, I can take my political platform on the road.

Our goal is now *international* Zero Waste.

No good deed goes unpunished.

I don’t know too many people like me, who started in the political and policy side, but also started as a recycling guy. I stayed in government, then got thrown out of government, literally. Now I’m in the private sector, but all the time I was organizing. If you went to the state recycling associations, you would find people like me. They’re there if you look. As you run through your confrontations, you learn and you change.

DT: When you say you got thrown out of government are you referring to San Diego?

RA: (Laughing.) If you follow the rules but you do what’s right, you’re going to be punished. No good deed goes unpunished. It’s sort of like Newton’s

Law, for every action there's an equal and opposite reaction. That's just the way it is.

So, as I look back on my life, I pretty much have been termed out of all of my public-service jobs. Whether it was Cal State at Long Beach or Fresno County or San Diego, when the political winds changed, at our level my influence was diminished. I lasted a long time in the private sector. SCS never ran me out, because I kept producing for them, making them money.

But in Fresno County the new director came in after I'd been there awhile. I had my alliances with all the politicians. But he said "I'm the boss now." And I said "well no, I'm the executive director of the commissions." And he said, "I have your payroll sheet." What he did is he froze my salary for three years, so while everybody was getting 5% and 10% percent increases, I didn't. And this was how he brought me into line.

So it became a battle of me versus him and I lost. I learned from that experience. The good news is that his actions led me to look for other opportunities. San Diego was next. The Anthonys left Fresno in 1987. At that time the county was at 35% recycling, it had the first double-lined landfill in California, and we had sited recycling centers in all the cities and towns in the county.

When I moved to San Diego, what we did was that we just kept raising the tipping fee and giving the money to the recyclers. We bought trucks and bins for all the towns. In exchange, they passed mandatory source separation ordinances. We spread it, and spread it, and spread it, and finally, the politics changed again, and a new government came in. The new board was told that AB 939 goals had been met, and that the business was worth a lot of money. So they privatized it. I fought the privatization, but ultimately our section was eliminated.

The Supervisors Sold Our Public Asset.

When our Supervisors sold our public asset, they sold the assets created by the entire solid waste division of a big county. It was five sanitary landfills, a series of ten transfer stations, and the biggest MRF in the world. We had a billion cubic

yards of permitted air space. The whole thing was sold to Allied by the government of San Diego for \$180 million cash. The buyout started in 1993; 1995 was probably when it ended.

DT: \$180 million cash.

RA: Allied made the offer. I used to call them four guys named Vinny from Arizona. They walked into the San Diego Board of Supervisors, and said "If you do this deal today, you'll have the money by Friday. That's our offer."

And we said, "Wait! Wait! You've done this negotiation behind closed doors. Now we have to have a public process. This is public land, and public money; it's a public entity. We're the union, we're the League of Women Voters, we're CRRA!"

But the chairman of the Board of Supervisors said, "Rick, doing this deal behind closed doors worked out so good that we're going to do all our business that way from now on!" Then they called the question, and the vote was 5-0.

I lasted about three years after that. They put me in wastewater, so now I ran wastewater treatment plants. But I was *so* upset that I joined the union. Principal managers don't join unions. I became a union steward, and when they had the first big lay-off three years later, they laid off incompetents and incorrigibles. I was one of those.

The deal that went down was a downer for the public.

DT: Were there any public repercussions from this unholy deal?

RA: Yes, but only from those of us who understood, like the League of Women Voters and the Sierra Club. In fact, those same five supervisors had been re-elected four times. Nobody runs against them. So it was all the public's money on the table that was being sold, a lot of capital that built up after I got there.

We had a five-dollar tip fee when we started. During my four years in San Diego recycling we raised that tip fee to \$50 a ton! That was an additional \$45 a

ton for 3 million tons that we got to spread out to everybody to build the infrastructure. Then the Supervisors sold it to a big waste company.

It was all public money and investment that was on the table and got sold in a cash buyout.

Was this intimidation? You tell me.

DT: Do you recall any instances of violence, intimidation or threats against any reusers, recyclers or composters that you were personally associated with at the time?

RA: I'm pretty much a peaceful guy. Most of my life I've learned how to talk my way out of fights.

DT: Any of your subordinates or associates? I'm not talking about people in Santa Rosa.

RA: The answer is yes, but first of all, I won't say it was a threat, it was intimidation. This intimidation happened to me when I was working for the County of Fresno. Lenny Stefanelli went to work for Waste Management at about that time. So he drove down

to Fresno and wanted to convince the County to sell all its landfills to Waste Management. He had his black suit on with his black suit and his black tie, and then he showed us these Uzis that he sells from the trunk of his car. I mean, he's a licensed Uzi salesman! We giggled nervously, but we didn't think this was a threat.

Can recycling compete for disposal service fees?

DT: Rick, do you know of anywhere that has a more or less free marketplace for disposal service fees?

RA: Residential collection is usually a franchise, so that market is restricted. Some cities franchise commercial too, but in the City of San Diego, it's up for grabs by anybody who can buy a permit.

We've tried in various ways to remove barriers to price competition between collectors and operators. We passed a requirement for both mandatory source separation *and* mandatory source-separated collection. By doing that, we tell the public they have to *sort* their discards. And, when you don't have a franchise system, that levels



the playing field. It requires every hauler to offer the same service, a recycling service and a mixed service. It's very effective.

Can wasters and conservers truly form a coalition?

The problem with mixed waste is that all the food and yard waste gets wet and wets down the paper. The food, manures, and other organics are biologically active. They create spores and diseases. They need their own special handling. Sorting where these things get mixed is not a good job, because it's dangerous and nasty.

DT: So it's about avoiding contamination, and handling efficiency.

RA: Right. If it comes in clean and separated, then it takes 90% of the work out of sorting. Mechanical sorting can help with light contamination.

DT: Have you reached any conclusions about the merits or downsides of these three very different disposal practices: burial, burning, and beneficiating?

RA: Yes! The most important question is whether understood to be the process of setting who gets what, when, where, and how.

RA: I believe the answer to that is we get all the stakeholders at the table talking to each other. Once we realize that all the stakeholders are on board with a direction, then we convince the politicians to act.

If you were at the Paris Commune, you saw a short time in history when the revolutionaries actually actually ran France. Well, we had a Paris Commune in San Diego for about four years. We had the land, we had the money.

DT: They ran Paris, but not the rest of the country.

RA: Well, we ran San Diego County and all the cities except for San Diego, who had their own landfill. We ran the garbage stuff for four years until they figured out how to get us out of there by selling the Division. Actually, the system we created is running just fine, and is evolving in a more decentralized manner.

