

ENVIRONMENTAL SERVICES ADVISORY COMMITTEE (ESAC)

2024 Annual Report (January 1-December 31, 2024)

The Environmental Services Advisory Committee (ESAC) was established to advise and make recommendations to the Mayor and Council on programs and services provided by the Environmental Services Department (ESD). This report serves as a review of ESAC's activities during the 2024 calendar year.

Committee Structure and Meetings

ESAC has a prescribed fixed number of 13 voting members representing residents or businesses within the City of Tucson. Hybrid meetings for full ESAC are held on the second Thursday of each month from 4:00 PM to 5:30 PM. This format has made it easier for committee members to attend meetings and reduced the carbon footprint of our meetings.

In 2024, full ESAC met 9 times, with 2 meetings canceled, including the usual July meeting for summer break. and we always made quorum.

At the close of 2024, ESAC had only 7 active members and looks forward to new appointments in 2025 from the City Manager, Mayor Romero, and Wards 1, 4 and 5 Council Members. Ward appointees are not required to live within the Ward boundaries they represent but must be either residential or commercial customers of Environmental Services. ESAC continues to seek new members with professional or technical competence and interest in one or more of the following areas:

- Utility rate making
- Solid waste management and planning
- Business management
- Financial analysis
- Environmental protection
- Environmental engineering
- Recycling
- Neighborhood issues

Each ESAC Committee Member brings a valuable perspective, and the committee shares a common goal of educating the public and improving our community. It is essential that the City Manager, Mayor Romero, and Council Members appoint well-informed, qualified individuals to ESAC. Effective boards, commissions, and committees rely on the involvement of interested and qualified people, as noted in Plan Tucson.

Subcommittees

ESAC has three subcommittees that review specific areas of the Environmental Services Department (ESD) These subcommittees are:

- Environmental/Engineering – Focuses on capital investment projects and receive updates on environmental compliance at open and closed landfills.

- Finance – Reviews financial reports, quarterly updates, and the annual budget is tasked with reviewing the annual budget, making recommendations related to utility rates before submission to the Mayor and Council.
- Waste Diversion, Collections and Education – Addresses waste diversion initiatives, recycling programs, educational outreach efforts and code enforcement.

In 2024, no Environmental/Engineering and Finance subcommittee meetings were held. Items typically discussed in those subcommittees were provided to our Full ESAC meetings. Waste Diversion, Collections and Education met 10 times in 2024.

Finance

Finance updates were presented at every full ESAC meeting but two in FY2024. Accountant Maggie Stevens presented the standard monthly reports to the committee. The reports included prior year actuals, budget to actuals for the current fiscal year and a current forecast. There are two reports that are reviewed each month. One by expenditure and revenue type for the Environmental Services Fund 502 and one by Environmental Services program (such as Residential Collection and Household Hazardous Waste).

Effective February 13, 2023, the Mayor and Council adopted Ordinance 11983 which resulted in a residential rate increase of \$3.25 per month per customer. The ordinance also had provisions for a secondary rate increase of \$3.00 which was adopted in January of FY 2024. The full adopted increase of \$6.25 per month is now in effect for all residential customers.

Additionally, in May of 2023, the Mayor and Council approved a plastic waste diversion and reuse agreement between the City and ByFusion Global, Inc. The Environmental Services enterprise fund absorbed all the costs associated with the development and construction of the metal building and associated infrastructure for ByFusion's use at the Los Reales Sustainability Campus. The costs for this investment is estimated at \$3.4M

Fleet costs FY2024 for Gas & Diesel, CNG, Maintenance, Tires, and Parts was forecast to be \$10.6 million. Rising costs caused by inflation and all work orders were tracked.

In FY 2024, financial audited statements included balances for landfill closure-post closure costs as follows:

- Los Reales Landfill: \$37.2 million
- Harrison Landfill: \$1.7 million
- Irvington Landfill: \$2.0 million
- Vincent Mullins Landfill: \$2.1 million.

At the end of FY 2024, revenue collected totaled approximately \$72 million, with expenditures at approximately \$64.6 million. As of June 30, 2024, Fund 502 had an ending cash balance of \$61.8 million. Capital Improvements costs for FY2024 amounted to approximately \$2.1 million. With the 2nd half of rate changes, ES ended the fiscal year in the green! The adopted budget for FY2025 totaled \$71.8 million.

Waste Diversion, Collections, & Education Subcommittee (WDCE)

The WDCE Subcommittee, with five of the full committee's eight members, had a productive year. Members deepened their understanding of the City's evolving waste services, particularly those that enhance landfill diversion. Notable successes included Household Hazardous Waste collections, the continued growth of biannual Zero Collection Events, the expansion of both the commercial FoodCycle program and the residential FoodCycle at Home program. Additionally, the City broke ground on the ByFusion facility at the Los Reales Sustainability Campus, adding a diversion stream for hard-to-recycle plastics. The year also saw significant progress in making alleys safer for collections and expanding Code Enforcement to address capacity challenges and the growing Homeless Encampment Protocol Group.

ESAC members also participated in PLAN Tucson meetings throughout the year, both within and beyond ESAC sessions, providing critical input on Environmental Services-related issues.

Recycling

On a fiscal year basis (July 2023 – June 2024), the City received 4.1% fewer tons of material at the Materials Recovery Facility (MRF) in FY24 compared to FY23. Despite this, the City earned an average of \$92.48/ton for recycled materials in FY24, up significantly from \$71.51/ton in FY23, reflecting a renegotiated contract with Republic Services and increased commodity prices. As a result, the City's payments to the MRF dropped 27.9%, from \$1,446,566 (\$58.83/ton) to \$1,000,676 (\$42.44/ton).

Corrugated cardboard (OCC) and other paper accounted for 28.8% of materials received, while old newspaper (ONP) and other paper comprised 25.5%. Together, these made up 61.3% of total recycling revenue in FY24.

On a calendar year basis (January – December 2024), MRF payments fluctuated, from a low of \$29,320 in October to a high of \$93,754 in January, driven by seasonal variation in material volume and commodity prices. For example, OCC and other paper peaked at \$148.28/ton in August and dipped to \$109.64/ton in December. Aluminum remained the most valuable commodity, ranging from \$1,380/ton in January to \$2,140/ton in December, increasing monthly except in August. Some residents are still placing glass in their blue barrels and the cost of transportation of the glass sold is deducted from the MRF Revenue from Sales.

In July, Republic Services began shipping plastics #1, #2, and #5 to a new polymer recycling facility in Las Vegas, stabilizing their price at \$440/ton and mitigating previous volatility. This change significantly increased the value of #5 plastics, which ranged from \$40-\$150/ton before the transition.

Quarterly audits tracked MRF contamination rates, which increased for most of the year:

- January: 23.8%
- February – March: 24.6%
- April – June: 24.9%

- July – September: 26.3%
- October – December: 25.4%

Composting

The City launched FoodCycle at Home in late 2023 in partnership with Community Gardens of Tucson. The program started with six secured drop-off sites—one per Ward—accessible only to participants who completed in-person contamination prevention training. The program provided participants with collection pails for home use. The successful pilot became a permanent program in 2024, expanding to nine drop-off locations. Future growth is planned through a partnership with the University of Arizona Compost Cats, which has operated a similar initiative since 2021. Jose Garcia is a U of A graduate, who used to work with the Compost Cats as a student and now manages the composting at LRSC as an Environmental Service employee.

The commercial FoodCycle partnership remained stable, with consistent participation from local businesses.

At the Los Reales Sustainability Campus (LRSC), the City launched green waste diversion, complementing the TreeCycle Program. More than 400 tons of green waste was collected quarterly at the entrance to the Los Reales Landfill, ground to a smaller size, and incorporated for use in the compost operation. In total, over 1,000 tons of green waste were diverted, demonstrating significant potential for expansion.

The City distributed hundreds of tons of good quality compost (which was tested by Compost Cats and had good carbon to nitrogen ratios) to City parks, community gardens, residents and the University of Arizona.

ByFusion

Community adoption of hard-to-recycle plastics collection exceeded expectations, overwhelming ByFusion’s processing capacity due to excessive volume at drop-off sites that included non-residential commercial and industrial plastics, and other contamination. To mitigate these challenges, ByFusion and COT partnered with Hefty Renew, requiring all hard-to-recycle plastics to be bagged in orange Hefty Renew bags before drop-off. A welcome addition to this program is that we can now add styrofoam to the orange bags. These bags are available for purchase at Fry’s Food Stores and Walmart (in local stores), Target (online) and distributed free at every Ward office.

The City hosted several hard-to-recycle plastics town halls, each drawing hundreds of attendees. The biggest complaint was having to buy the Hefty Renew bags. Hefty is paying to transport the orange bags to Los Angeles until the ByFusion building is completed at the LRSC site. The ultimate goal originally was to integrate orange bag collection into curbside recycling and redirecting it through the MRF, but Republic Services is not interested at this time.

Environmental Services continued to deal with too much contamination in the large orange collection bins set up at Ward offices. Specific instructions are on the front of every orange bin, but some residents and commercial businesses continue to throw in items that are not in Hefty bags or “wish-cycling” items ByFusion will not take.

Construction of the new ByFusion facility began in January 2025 and is expected to be completed within a year, significantly enhancing processing capacity. The contractor is BFL Constructions.

Other Diversion Efforts

The Household Hazardous Waste (HHW) Collection Events did an excellent job of keeping hazardous chemicals and household products out of our landfill. Each month there were long lines of vehicles waiting to properly dispose of these types of items. A change for 2025 is that there will be no collections in June, July and August because it gets too hot for staff and volunteers working these events.

Both biannual Zero Waste Collection Events at Catalina United Methodist Church achieved 95% diversion rates, setting participation records:

- April: 456 cars
- November: 528 cars (record high)

The total 2024 Zero Waste Intake was 984 items with the 3 highest drop off items being paper (44.82%), electronics (38.41%), and medications (23.27%). Most customers answered a survey about where they learned about the Zero Waste Collections Events and they responded (76%) that it was from the flier in their water bills.

The City continued to accept glass only at designated drop-off points (purple roll-offs), with material transported to Phoenix for recycling by Strategic Materials.

We received U of A Office of Sustainability updates from Senior Director of the Office of Sustainability Office and ESAC member, Trevor Ledbetter for Spring end of school year student move-out. Still a work in progress with Sustainability students helping to sort bins with food items going to campus pantry, clothing to Goodwill and local Suburban Miners Company helping to divert electronic and furniture waste from LRSC. ESAC continues to brainstorm how we might support their efforts. Unfortunately, most students are still bad at recycling!

Collections

Each month, Jose Montijo provided WDCE members with updates on equipment operators and new equipment costs and delivery. At the start of 2024, Collections had 10 open equipment operator positions. To address workforce shortages, the City partnered with Pima Community College to train prospective operators for their Commercial Driver's License (CDL). One woman went through the class. ESD now wants to create their own CDL so internal training can start anytime during the year. By the end of the year all positions were filled!

Environmental Services acquired several new rear and side loaders, including the City's first electric side loader garbage truck. However, the City is still awaiting delivery of numerous vehicles ordered in 2023 and 2024 which were delayed by the Covid pandemic. In April, Luis Luna reported that Trash collection routes were adjusted and 15 routes were added because of the equipment shortage. Adding routes with a consistent number of houses will help.

The City implemented Rubicon, a tracking software installed on all collection equipment. Combined with cameras and GPS, Rubicon helps pinpoint missed pick-ups and may eventually use hopper-mounted cameras to track contamination, enabling targeted education efforts.

Tucson has 140,000 households with alley waste collection service, though many alleys remain unsafe due to vegetation overgrowth, utility placement, and structural hazards. The City conducted an alley safety assessment, identifying which alleys require maintenance, improvements, or transition to curbside service.

Brush & Bulky discussions continued on addressing neighborhood B&B clean-up delays from large amounts of seasonal monsoon debris, illegal dumping, new neighborhood growth and staff shortages. In December, a Brush & Bulky By Appointment pilot program in 2 pick-up areas was announced and letters sent to residents that ~~will be~~ **were** chosen for this pilot program. Neighborhood growth in the Vail area and illegal dumping in a SE neighborhood was placing a strain on Environmental Service's staff and the hope is that an appointment-based B&B collections will make the program more efficient and help reduce illegal dumping. Public meetings will be held in 2025.

Landfill

WDCE received monthly operations and compost updates from Frank Bonillas. At our 11/6/24 WDCE meeting, he reported that after an EPA site inspection in March, LRSC received a notice of violation for excess methane gas found in Cell 4B. Horizontal collectors for methane gas have been installed and Cell 4B is now in compliance. A future goal, that has been discussed for many years, is to refine the methane gas into CNG then into RNG and build a regional pipeline or generate electricity on site or develop a fueling system for City vehicles and buses. Methane gas has been flared since TEP stopped having it piped to their facility. ESAC would really like to see some progress made on this LRSC problem.

Public Outreach

At every WDCE meeting, Cristina Polsgrove reported the yearly public outreach events that included: FoodCycle at Home presentations, Valentine's Day and Halloween Day tours of MRF/Landfill, Zero Waste Collection Events, 20th Earth Day Celebration at the Children's Museum and Zoo Party For the Planet, Team Up to Clean-up, ByFusion/Hefty Renew meetings, Back to School Bash, Recycling presentation for an Olli class, Trunk or Treat, Halloween Boo Bash, Family Fun Fest at the Zoo, Ward 2- Know Where to Throw Town Hall, and TreeCycle for Christmas trees begins.

A great deal of time and effort goes into Environmental Services outreach, and these were some of the highlights!

Code Enforcement (CE)

At the beginning of the year CE was 3 months behind on code violation reports, due to staff shortages. Many of the cases got bogged down in City Court and can take years to get corrected.

Absentee landlords are always a problem. Issues with the new computer system took a long time to correct and many reported cases were forgotten. Throughout the year some neighborhoods were dealing with residents building ADUs without proper permitting. Since CE is complaint-driven, it becomes the residents' problem and PDSD doesn't always follow up with incomplete permitting issues that need to be corrected.

Environmental Services hired three new Community Service Officers (CSOs) to handle low-level complaints such as property maintenance issues. While these roles saw frequent turnover, some CSOs were promoted to Code Enforcement Inspectors (CEIs), helping reduce backlog and offering a structured pathway to CEI roles. At City hiring events many of the applicants for open inspector positions were not qualified. Some difficulties with a new Human Resource process slowed hiring. Director De La Torre worked hard to hire 2 new people who were already working for the City and another outside applicant. At the end of the year CE had 14 inspectors and was down to 1 CSO.

Code Enforcement continued evaluating safety measures, including body armor and respirators for staff. Three inspectors are on-call and respond to Fire and Police calls, cars into buildings, and hoarders. Their job is to condemn and secure buildings. It is voluntary and CE is losing people. One inspector is currently in training. The team also collaborated with the Homeless Encampment Protocol Group to address active and inactive homeless encampments. Inspectors did further research for Tier 3 serious problems with camp outs to find the property owner.

A Vacant & Neglected Structures (VANS) foreclosure project was organized to address the problems associated with property owner neglect. The City Attorney's Office is helping with the legal process and foreclosures.

Zoning for Adult Home Care Facilities and Sober Homes access is a problem. Proper paperwork, following State requirements and a Certificate of Occupancy are necessary, but the homeowner can deny entrance and inspection. A court order, warrant and help from Adult Protective Services is needed.

Lastly, Code Enforcement went out to the Campbell/Valencia area with a couple of TPD Officers to deal with unlicensed peddlers' issues in the neighborhood. TPD directed traffic and inspectors issued CE citations for no licensing, handwashing equipment, took cooking equipment and shut down the peddler tents for other violations.

Hopefully, Code Enforcement's sudden move back to PDSD at the end of the year will not change the progress that was made. Code Enforcement continues to be chronically limited by staffing and needs an administrative position filled first and supervisory staff to ensure CE is timely trained correctly and responsive.

Full ESAC

At our first Full ESAC meeting of the year, Director Carlos De La Torre's report included a ByFusion update and the proposed new Los Reales Sustainability Campus Planned Area

Development Plan (LRSC PAD) with the Committee. He explained that storage issues with plastics collected for ByFusion became a big problem with more participation than expected and contamination from industrial and commercial business plastic waste. The Director told us that was when talks began with the Hefty Renew Program. He stressed that none of the plastics collected were landfilled and were being stored at Friedman Recycling and LRSC. Since the agreement with ByFusion is for five years, the ByBlock building location was selected in a place that can be used by LRSC if the agreement changes. The site chosen is West of the scales and North of the HHW building and construction has begun.

The LRSC PAD Plan update included information about the changes for the following areas:

- Los Reales Sustainability Campus
- Waste Reclamation District
- Community Resources District
- Sustainability Campus Commerce District
- Open Space + Recreation District
- Public Right-of-Way
- Existing Roads
- Proposed roads

All the changes that are being proposed began with the renaming of the campus to Los Reales Sustainability Campus and in 2024 was about how the City can better use the land around the landfill and within the landfill. The process to approve and amend the proposed changes required a few scheduled public hearings, bringing it to the Planning Commission and then Mayor and Council for direction and approval to amend. The last step would require bringing the Plan to the Arizona Department of Environmental Quality and the changes would begin in 2025.

When several ESAC committee members became involved with the Plan Tucson update meetings, there were big concerns about the lack of waste management policies and feeling like the outreach was not successful. Plan Tucson updates became a part of our monthly meetings for continued involvement and discussion by committee members.

In May, the Director updated ESAC about the Deputy Director recruitment process with information on recent interviews. Out of 16 candidates, 10 did not qualify and out of those that qualified 2 were internal employees and 4 were external. Instead of filling the necessary high level Deputy Director position right away, our new City Manager Thomure asked the Director to hold-off filling the position until ESD goes through a realignment. This also required an examination of everything ES is trying to accomplish with the Zero Waste Roadmap and Climate Action Plan. ES has many projects like gas to energy, waste diversion, homeless initiatives and a green fleet transition plan that will need more staff to get things started. High level positions need managers, and ES needed a strategy to figure out the financial challenges to accomplish everything!

A Commercial Hauler Forum, that included 20 participants from all over Arizona, was held at LRSC to showcase some of the projects at the Sustainability Campus. They were updated by Frank Bonillas on the intersection improvement at Craycroft and Los Reales Roads, work being done on a green diversion tipping fee, the status of the ByFusion building, a plan amendment for

the Sustainability Campus, and land set aside for a future MRF facility. He addressed concerns about a need to do a better job maintaining road construction, dust control and solving issues with tipping floor problems and damage done to trucks from mattresses. Overall, it was a good gathering!

Hiring continued to be a problem in July with new Human Resource directions that needed special approvals and rewriting new job descriptions. There had been no new employees hired since March and ES had to make the job descriptions with HR's approval. Working to expedite hiring and working with the new system Onboard was really a challenge. With new policies and new programs the systems were not working.

Still without a Deputy Director, the Director was able to appoint long time employee Jose Montijo to Superintendent for Collections and he handled Brush & Bulky, the Homeless Encampment Protocol clean-ups, recycling pick-ups and did a good job.

In August, the new recruitment process changed, and this allowed the Director to be the Hiring Manager. He was finally fully engaged in the process and did not need to submit all interview questions for approval. Everything was now done by ES's own hiring panel. The pay rate calculator created some moral issues when new hires were getting paid more than the incumbent employees. With disparity in experience, new hires are now offered initial starting wages and then can negotiate for salary based on their individual experience. It was important to not start a compression issue. Filling positions was now easier with these changes.

Director De La Torre brought up two important financial issues in Fall 2024 that required a response to two different fee increases at LRSC. The first is a Chapter 15 rate issue to deal with operational costs and the necessity to increase fees for commercial landfill disposal rates. The last increase was 5 years ago, and ES is looking at cost recovery for tire disposal and special handling costs of green waste and food collections. The next one deals with ADEQ's proposed Solid Waste fees evaluation based on cost of service. With ADEQ increasing the fees in January 2025, the cost will need to be passed along to Los Reales customers. Some ES pushback is to request that the fees not be billed until the new fiscal year. Fees can be as low as \$12,000 up to \$20,000. The tonnage rate increase will have the biggest effect and could go as high as \$.58/ton from current rate of \$.25/ton. ADEQ is trying to recover the costs of their solid waste program.

Big one-time fees are not as impactful as disposal fee. ES needs to present a timetable for the cost-of-service study! ES will be using NewGen for the study and do an operations review of the whole department to develop the capital outlay program needed to implement the zero waste initiatives. The ESAC Finance Subcommittee should get together in Spring 2025 for a meeting of preliminary findings.

Brownfields

In November, ES Brownfields (BF) updates were provided by Frank Bonillas. The 10/1/2018-10/30/2024 Total Grant amount was \$300,000 and spent. The accomplishments for Thrive in the 05 included the assessment of eight BF properties considered by City of Tucson (COT) for affordable and transitional housing. The eight properties are the Milagro on Oracle (No-Tel Motel),

Sugar Hill on Stone aka Bum Steer), Menlo Park, Econo Lodge on Stone and four properties on the corner of Speedway/Stone. The 10/1/2022-10/30/2027 Brownfields Revolving Loan (RLF) Funds included a \$1M EPA contribution and a COT cost share of \$214,200. These loans are managed by a Contracted Fund Manager. Potential sub-grants will go to the Children's Museum and Southwest Folklife for asbestos abatement. The Midtown Farm (formerly Julia Keen Elementary School) will get soil cleanup. The 2024 State Response Grant abatement was for asbestos and lead-based paint and will include the Dunbar Pavilion, Southwest Folklife Alliance and S 10th Ave site-El Pueblo Housing Development. With the BRF the EPA has contracts with a contractor. ES has just applied for a grant that will operate from 10/1/25-09/30/2029

Silverbell Pump & Treat.

Soil and groundwater contamination by gasoline and MTBE. The current groundwater extraction and treatment operation is operated by consultants and to date 1.9 billion gallons of extracted water was treated with 917 pounds of chlorinated volatile organic compounds (VOC's) removed. Ground water is pulled into extraction wells and PCE is easily managed in the groundwater.

Kinder-Morgan-Silvercroft Wash Release

Kinder-Morgan is still monitoring wells. A problem being watched is that Benzene and MTBE are in danger of commingling with the Silverbell Landfill plume. However, the MTBE plume mass has continued to decrease since 2008 by using microbes that naturally break down the MTBE.

ESD 2024 by the Numbers

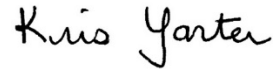
- 20,919 graffiti spots cleaned
- 2,014 illegal dump sites cleaned
- \$45,570 spent on Brownfields assessments
- 727,405 tons of trash collected
- 22,460 tons of recyclables processed
- 305 tons of compost distributed
- 468,111 pounds of Household Hazardous Waste collected
- 9,050 bags of litter collected
- 984 participants in Zero Waste Collection events

Closing Remarks

ESAC continues to appreciate the Environmental Services Department's dedicated and efficient work, even amid challenges like understaffing. Under the leadership of Director Carlos De La Torre, and without a Deputy Director for all of 2024, the department has worked tirelessly to improve Tucson's cleanliness and safety. The staff's dedication is commendable, and ESAC values their collaboration in providing crucial information and supporting the committee's efforts. I would also like to give a special thank you to Brittany Aldrich for putting our agendas together and facilitating productive Zoom meetings.

We extend our gratitude to the Mayor and City Council for the opportunity to serve and remain committed to supporting Tucson's Zero Waste Roadmap and the continued improvement of Environmental Services.

Approved by ESAC on April 10, 2025.

A handwritten signature in black ink that reads "Kris Yarter". The signature is written in a cursive, flowing style.

Kristine Yarter
ESAC Chairperson