

2018



Philadelphia Scrapyards and Auto Wrecking: **PLANNING CONSIDERATIONS**



Introduction

Over the past decade, the City of Philadelphia has developed an array of thoughtful planning studies to guide the next generation of growth. The *Philadelphia2035* comprehensive plan established a citywide vision for improvement and revitalization, while district plans have developed achievable recommendations to improve the quality of life within smaller geographic areas. The City has also engaged in topic specific plans, such as the Citywide Trails Master Plan, Ped and Bike Plan, Consolidated Plan for Housing and Community Development, Greenworks, and Lower Schuylkill Master Plan, all of which call for the revitalization of the city in a community-oriented and environmentally-conscious way.

As planning and implementation proceed throughout the City, challenges inevitably arise. One such challenge is scrapyards, automobile salvage, and other related waste recycling industries. In Philadelphia, these uses range from small mom-and-pop shops in residential communities that sell tires and “Pull-A-Part” salvage to larger operations with established sites in industrial areas. When located and managed properly, these facilities support the recycling of equipment, parts, and materials, create jobs and revenue, and provide a cost-effective secondary market for consumers. When located and managed poorly, they provide direct threats to public health and the environment. In residential areas, communities

complain about increased noise and truck traffic, aesthetics, environmental contamination, and criminal activity related to these operations. In established industrial areas, scrapyard activity is often seen as a low quality industrial activity that competes with newer and cleaner industry that the city is trying to attract.

Some of the city’s scrapyards, salvage operations, and recycling centers pre-date the city’s zoning code and establishment of floodplain maps. Further, some businesses operate illegally or create externalities that violate city, state, and federal regulations. These factors make it difficult to manage operations, to enforce clean practices, and to derive tax revenue from this sector.

Many of the city’s scrapyards are concentrated in areas that also include vulnerable populations, high levels of industrial activity, and significant environmental challenges. Four of these districts are the Lower Southwest, North, Riverwards, and North Delaware Districts in Philadelphia. This paper will analyze issues surrounding scrapyard activity, will provide a toolkit to improve conditions at scrapyard locations, and will serve as a foundation to seek regulatory changes and funding.



Existing Conditions

Size and Scale of Operations

Philadelphia hosts over 160 acres of land devoted to 43 actively-licensed auto wrecking and junk yards (see Figure 1). The bulk of the activity is concentrated in the Lower Southwest, North, Riverwards, and North Delaware Districts. The largest clusters of activity are located along Passyunk and Essington Avenues in Lower Southwest, Glenwood Avenue in North, Torresdale and Aramingo Avenues in Riverwards, and the North Delaware Waterfront. These large facilities are often appropriately sited, away from residential dwellings, though there is competition for scarce industrially-zoned land, and newer development is sometimes incompatible with these uses.

Numerous smaller “Pull-A-Part” shops, auto repair and sales uses are located sporadically along rail lines, waterways, and within residential areas throughout Philadelphia. These facilities are not always licensed and sometimes engage in activities for which they are not approved. Their operations often spill outside of their property lines. While these uses exist throughout the city, there are a disproportionate number located in Lower Southwest, North, Riverwards, and North Delaware Districts.

Economic Impact

The scrap recycling industry in the United States is a capital-intensive industry that directly employs 149,000 workers. In 2015, the United States exported \$17.5 billion worth of scrap commodities to 156 different countries. The industry accounts for 0.68 percent of the nation’s total economic activity, and generates upward of \$11 billion in federal taxes and state and local revenues annually. In Pennsylvania alone, the industry is responsible for over 7,000 direct jobs, and \$2.5 million in direct output. (Source: Economic Impact Study: US Based Scrap Recycling Industry (2015), Institute of Scrap Recycling Industries, Inc.)

The Philadelphia Revenue Department reports that the City has received only a bit over \$1 million in tax revenue from receipts related to scrap recycling since they have started reporting. These revenues are not considered significant and the City estimates that more than double that revenue is outstanding from overdue payments. Much of the work done in scrapyards is a cash business, the prices received for metals fluctuates regularly, and not all facilities are licensed. The City still pays to recycle much of its own waste and debris.

Despite the issues associated with licensing and collecting revenue, there are secondary benefits through recycling and employment. The recycling of scrap metal and materials fills an important role in Philadelphia’s waste handling and reuse of materials. Further, in areas of the city where there are barriers to accessing the job market, such as poor educational and skill attainment, language barriers, non-documented immigrant status, and more, the scrap salvage industry offers gainful employment to underemployed residents.

Environmental Impact

Well-run salvage yard operations serve as important recycling assets to the city and region. When yards are kept clean, and proper handling and disposal techniques are used, the surrounding environment can be kept free from contaminants, and scrap can be reused and recycled appropriately.

A poorly operated and uncontrolled scrapyard can expose its workers, the surrounding community, and waterways to contamination through the mismanagement of gasoline, diesel fuel, transmission fluid, oil, power steering and brake fluids, mineral spirits, gear oil, HID head lamps, mercury from light switch assemblies, display screen back lighting, ABS

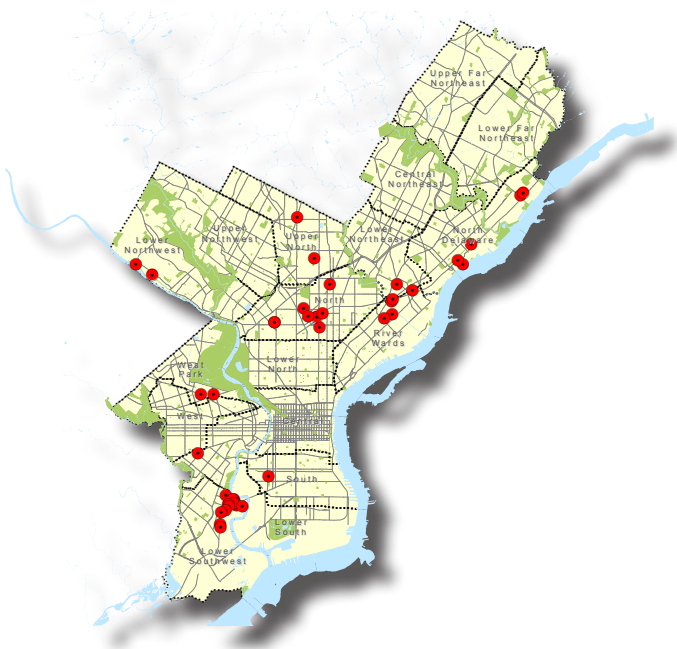


Figure 1 – Active Auto Wrecking and Junkyard Licenses, L&I 2017.
Note: This is a snapshot of Active Licenses from January 2017, and may not capture all current Auto/Junkyard licenses.



Existing Conditions

brake sensors, wheel weights and battery cable ends, lead from lead- acid batteries, chlorofluorocarbons (CFCs) and refrigerants from air-conditioning units, sodium azide from air bags, asbestos from brake shoes and clutches, and waste tires.

Recycling

Scrap and auto wrecking facilities provide a necessary service in the recycling of metal and auto parts. In 2014, it was estimated that of the 2.5 million tons of waste Philadelphians generated, about 400,000 tons (16%) came from construction and demolition activities, and only 25,000 tons of this material was reported to have been placed in landfills. Notwithstanding illegal dumping, this implies that a great deal of construction waste is being reclaimed and recycled through market forces.

Common Contaminants

Petroleum Hydrocarbons: Contained in gasoline, diesel fuels, and motor oil. Petroleum hydrocarbons are toxic to aquatic life and some are suspected or known carcinogens. Those with a high affinity for sediments can persist over time in bottom sediments, where they can be toxic to communities. They have the potential to move offsite via storm water and sediment runoff, either directly into surface waters or more commonly through storm sewers. In heavily impacted areas, vertical migration of contaminants in groundwater can occur.

Heavy metals (lead, cadmium, chromium, zinc, copper, nickel, aluminum, arsenic and mercury): Heavy metals can be toxic to aquatic life and can bio accumulate in fish and shellfish. At a motor vehicle recycling facility, heavy metals can migrate to surface waters through storm water runoff and into nearby soils through corrosion of the body and parts, leakage of motor fluids, dismantling operations, and improper handling and storage of vehicle components that contain heavy metals.

Acids: At a motor vehicle recycling facility, sources of acids include batteries, solvents, and degreasers. Acids can affect soil chemistry, which in turn can adversely affect plants and human health, and can create conditions toxic to soil organisms, and result in soil contamination.

Suspended solids: In high concentrations, suspended solids, such as heavy metals, can affect surface waters by reducing clarity and light penetration through the water column. This, in turn, can affect water temperature, plant growth and dissolved oxygen concentrations. Solids that settle to the riverbed or lakebed can smother plants and invertebrates and alter these benthic habitats that play important roles for fish and wildlife.

(Source: New Hampshire Department of Environmental Services Environmental Fact Sheet).

Properly managed facilities can help the city reach its goal of zero waste by 2035. (Source: Filthy Rich: Finding art and utility in the waste stream, January 27, 2017: Planphilly.com)

Soil Quality

Contaminants from the improper management of salvage yard facilities may contaminate the surface soil in which the recycling operations take place. These contaminants can further affect the site by seeping into groundwater sources such as aquifers or private wells. The continued contamination of surface soil may inhibit future land uses that may be more desirable to the surrounding community. Although Federal and State requirements are in place prohibiting the relocation of contaminated soil, the triggers for testing are not always met, and polluted soil can find its way onto construction sites and into residential areas.

Water Quality

Salvage yards contain four of the most prominent contaminants found in lakes, rivers, and streams: oil, grease, metals, and coolants from the recycled vehicles. Contaminants enter the water supply through stormwater runoff and seepage into groundwater, which has an impact on biotic organisms and water quality. Many yards sprawl out close to the Schuylkill River, Delaware River, and Cobbs Creek, which puts them at risk for increased stormwater contamination during flood events. Climate change and increasing sea level rise may exacerbate this issue.

Air Quality

Contaminants may be released into the air if they are not stored and handled properly. While they are not the largest culprits of dangerous levels of contaminants in the air, scrap and auto recycling facilities have been linked with personal accounts of offensive odors, and in some cases, processing operations have been linked to releases of toxic metal particles and gases. A recent report in the Riverwards District of Philadelphia indicated that tire cutting with a saw was heating tire webbing, making the tires smolder and smell to nearby residents that the tires were actually burning (Source: Kensington neighbors living by scrap yards want a future without salvage next door, January 12, 2017: Planphilly.com). In Houston, researchers discovered large amounts of hexavalent chromium in air tested outside of five midsize scrap yards that weren't present in the 10 locations tested away from the yards (Source: Danger in air near metal recyclers, January 9, 2013: Houston Chronicle).



Existing Conditions

Environmental Regulations

Regulations exist at the federal, state, and local level to protect air, water, and soil from contaminants. Many of the regulations identify specific contaminants and offer standards for emissions and cleanup. Like any regulation, their efficacy only goes as far as compliance and enforcement. Not all operations trigger review by federal, state, and local authorities, so many operations go undetected. To complicate matters, while state and federal regulations provide broad guidance, it is up to the municipalities to figure out how to

specifically administer and control behaviors to meet state and federal regulations. Even if municipalities meet broad attainment standards, local residents often feel like city regulations do not go far enough to protect their health and well-being. This results in the city scrambling to regulate behaviors that create perceived negative impacts, such as the cutting of tires. These types of regulations are often difficult to enforce, as resources are limited, and as offenders must be caught 'in the act.'

Federal Regulations and Programs

- *Resource Conservation and Recovery Act (RCRA)* - requirements for managing, treating, and disposing of hazardous wastes;
- *Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)* - handling of hazardous materials;
- *Toxic Substances Control Act (TSCA)* - requirements for storage and disposal of PCB waste;
- *Clean Air Act (CAA)* - regulates emissions and asbestos; includes standards for auto surface coating and solvent cleaning;
- *Clean Water Act (CWA)* - regulates discharge of pollutants into U.S. waters and regulates quality standards for surface water; includes guidelines for metal finishing, electroplating, and machinery effluent;
- *Underground Injection Control (UIC)* - regulates the usage and closure of motor vehicle waste disposal wells.
- *Brownfields Cleanup Program* - provides funds and technical assistance to reuse brownfields for redevelopment projects.
- *Underground Storage Tank Program* - provides information to aid with underground storage tank spills.

State Regulations and Programs

- *Storage Tank and Spill Prevention Act* - mandates corrective action for storage tank spills;
- *Hazardous Sites Cleanup Program* - provides funding and authority to conduct cleanup operations at sites where hazardous substances have been released;
- *Hazardous Waste Program* - regulates the generation, storage, transportation, treatment, and disposal of hazardous waste;
- *Municipal Waste Planning Recycling and Waste Reduction Act* - requires larger municipalities to recycle;
- *Waste Oil Program* - regulates the disposal of motor oil;
- *Waste Tire Program* - enforces the *Waste Tire Recycling Act* and provides for the proper disposal of waste tires and the cleanup of stockpiled tires, authorizes tax credits for utilizing waste tires, and provides remediation grants for the cleanup of tire piles;
- *Land Recycling Program (Act 2)* - provides uniform cleanup standards, liability relief, and financial assistance for the voluntary cleanup of contaminated sites;
- *Clean Water Program* - responsible for protecting and preserving the waters of Pennsylvania;
- *Division of Planning and Conservation* - provides services to protect and restore the quality of watersheds, streams, and lakes.
- *PA Act 113 Scrap Material Theft Prevention Act* - empowers law enforcement to inspect sales records at scrap processing plants.

City Regulations

- *Zoning standards* - restrictions on placement, screening, and operational activities of junk and salvage yards;
- *Zoning Flood Plain Regulations* - prohibits the storage of hazardous materials in the floodway and requires the elevation of hazardous materials in the flood plain;
- *Regulation of Business, Trades, and Professions* - prohibits the repair of motor vehicles on city sidewalks or streets;
- *Noise and Excessive Vibration Standards* - prohibit noise of more than 5 decibels above background levels to neighboring residential properties except for regular construction activities;
- *Refuse and Litter Controls* - prohibits short dumping and littering, establishes a reward program for information regarding short dumping;
- *Stormwater Management Regulations* - mandates stormwater management for each property and provides incentives for additional stormwater management controls.
- *Air Management Code* - Regulates air quality by controlling specific activities that cause pollution. Certain larger pieces of equipment may require an air pollution permit from Air Management Services, and some processes may be prohibited.



Existing Conditions

A number of federal and state programs have been put in place to solve some of the larger problems associated with environmental contamination and its effects on human health. Some of these programs, such as EPA's brownfields cleanup program, provide monetary assistance for brownfields characterization and planning. Others offer technical assistance and guidance.

Zoning

The only zoning districts that allow scrap and salvage yards to locate by right are I-3 heavy industrial, though these businesses can also operate in I-2, medium industrial districts with special exception. These industrial districts are indicated by dark purple and medium purple on the map in Figure 2. Industrial districts in Philadelphia are mainly located along the Lower Schuylkill waterfront, Delaware waterfront, and industrial parks in the city. Competition for land is sometimes fierce, as the market value for residential and commercial property is often higher than for industrial parcels, so the city has actively protected industrial zoning in areas where it is needed. Within these industrial areas, interest also exists to transform some areas to more modernized industry with lesser impact to spur economic development. Since I-3 areas permit a wide range of uses, there is also competition from other industrial users and regulated uses.

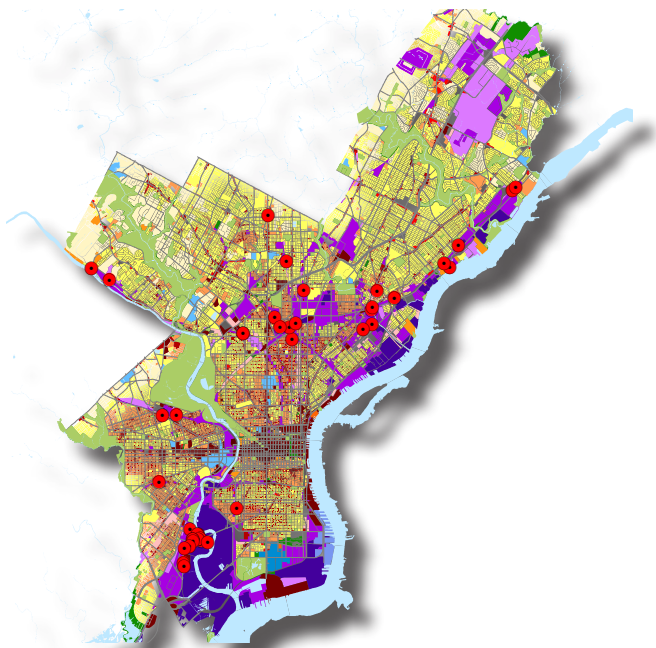


Figure 2 – Active Auto Wrecking and Junkyard Licenses and Current Zoning, L&I and Planning 2017. Note: This is a snapshot of active licenses from January 2017.

Definition: Brownfield

According to the U.S. EPA, a brownfield is a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

Philadelphia's *Phila2035 Citywide Vision* recognizes former industrial sites as opportunities for remediation, assemblage, and redevelopment.



Figure 3 – Smaller scrap and auto salvage yards are often located in and adjacent to residential neighborhoods, and are not well screened.

Community Impact

While large scrapyards and auto wrecking yards are mainly located along arterial streets in industrially zoned districts, some of these districts are seeing new development that is incompatible with heavy industrial uses. This creates conflicts for both the scrapyard operators and new users. Smaller and medium sized operations often extend into residential areas along railways, which are flanked with industrial zoning. Complaints from residents often include noisy operations, truck traffic, health concerns, aesthetic impacts, pedestrian conflicts within the streets and sidewalk, and criminal activity.

Scrapyard issues in the River Wards, Lower North and North mostly center on perception of the operations and on external impacts. The businesses are perceived as receivers of illegal scrap material, sources of revenue for the local drug culture, and generators of rats and other vermin. Residents also report that the facilities diminish values of nearby properties and encourage short dumping along the perimeter of the facilities. External impacts include: loud noises and vibrations, pollution from idling trucks, metal pieces emitted into the air when large machines rip apart car bodies and appliances, billowy smoke from smoldering tires, and visual impacts from lack of adequate screening of operations.

Existing Conditions

Residents are discouraged by how difficult it is to report violations and receive relief. Recently, Drexel University and the Clean Air Council conducted a study of violations reporting, and found that it is extremely difficult to navigate through the process. Multiple agencies are responsible for environmental and waste issues, not all complaints are resolved, and some issues return even after being resolved the first time.

Positive factors of scrap and salvage facilities for communities include; legitimate sources of revenue for individuals in districts with high poverty rates, and recyclers who participate in the green economy. However, many residents would prefer the establishments to be located within a warehouse or other enclosed space, away from houses and commercial corridors.

Appearance

Local zoning requirements prohibit junk and salvage yards from being located within 150 ft. of residential units and include set back and screening requirements. These requirements only kick in, however, for facilities that have applied for permits as a salvage yard after these regulations took effect. Older salvage yards are grandfathered, meaning they can continue to operate without changes in size or use, and smaller auto repair and 'pull apart' facilities sometimes apply as auto repair facilities, and so, avoid these restrictions. The result is many poorly screened operations, and in some cases, operations that exist within and adjacent to residential neighborhoods, even extending into the right-of-way.

Visual clutter creates environments that are unfavorable for pedestrians. People may be deterred either by trash and debris, broken glass, or simply by the visually unappealing environment. This creates a lack of pride and stewardship in the neighborhood, resulting in increased littering, decreased human activity, a reduction in quality of life, and deterrents to investment in nearby properties.

Crime

Salvage yards range from permitted and regulated commercial operations to smaller pop-up yards that may be operating without the proper permits. Smaller yards often have less stringent purchasing requirements which can lead to purchasing stolen materials. This has been an issue for struggling historic sites and monuments, public agencies, and private development sites, where there is a premium on iron fencing, metal railings, copper switches and wire, rail plates, and other metals.

Anecdotally, scrap and salvage yards are sometimes homes to secondary crimes, such as drug deals. The yards are often located in distressed communities, and the open air environment provides a convenient location for these events. They also provide a cash source for illegally poached metals, which can later be used to purchase illegal substances.

Public Health

In Philadelphia, the Clean Air Council worked with Drexel University, University of Pennsylvania, and New Kensington CDC on a community-based participatory air monitoring campaign, and continues to work with Drexel University to assess how people in the Riverwards District perceive their environment and environmental hazards. Data is still being analyzed, but the observations pointed to crime, construction, traffic, and industrial waste being major reported issues.

A Drexel study collected information related to particulate matter concentrations in the Riverwards in May 2013, and found that blocks around scrap yards qualified as unhealthy and very unhealthy on the Air Quality Index Scale. A Community Health Assessment published by Philadelphia's Department of Public Health in 2014 showed that the Riverwards have the poorest health indicators for child asthma hospitalizations, colon cancer screening, and smoking-related deaths in the city. While the air quality index and health related concerns cannot be fully attributed to auto wrecking operations, their contribution to air quality should be examined.

Environmental Justice

The districts in Philadelphia with concentrated scrap and auto recycling activity are considered by the Pennsylvania Department of Environmental Protection (PADEP) to be "environmental justice communities". These are areas where 20 percent or more individuals live in poverty, and/or 30 percent or more of the population is minority.

The PADEP environmental justice designation is designed to ensure that Federal, State, and local programs and policies do not disproportionately impact specific groups; however, the combined impact of industrial zoning, lower real estate values, and vacant land often mean that less desirable uses tend to locate near vulnerable and marginalized populations. The Lower Southwest, North, Riverwards, and North Delaware Districts are amongst the districts with the highest rates of poverty and lowest rates of employment in the city. These areas see the highest numbers of undesirable uses.



Study Assumptions

Philadelphia's growth and redevelopment is guided by careful consideration of economic development, environmental health, and social equity. All of these issues are thoughtfully balanced in the *Phila2035 Citywide Vision* and related city plans. In some cases, these considerations come into conflict, but the ideal of a healthy city is to balance each of these needs and to find a way to make them work together.

Economic Assumptions

- While the scrap recycling industry in Philadelphia is not a large driver of tax revenue, it fills a role for local communities in the form of employment and local production of goods.
- Scrap and automobile salvage facilities are often located on inexpensive industrial land. As the perceived value of land increases, so does competition from other uses.
- Enforcement and monitoring requires a significant amount of resources.

Environmental Assumptions

- Scrap and auto salvage facilities fill an important niche in terms of recycling in Philadelphia.
- Improved air and water quality are essential to creating a healthy environment for all Philadelphians. Regulations should ensure that scrap and salvage facilities do not negatively impact these goals.
- Many older businesses and industries in Philadelphia have had to comply with newer environmental regulations and initiatives, such as making room for the East Coast Greenway, and complying with stormwater regulations.
- Operations that negatively impact public spaces have a negative impact on public health.

Social Equity Assumptions

- All Philadelphians have the right to live a healthy life and should be treated fairly, regardless of race, color, national origin, or income.
- No segments of the population should be subject to disproportionately high and adverse health conditions.
- Scrap and salvage related uses should not proliferate next to residential dwellings and areas that attract children.

Land Use Conflicts

The city's scrap and salvage yards have been around for a long time. Many of them pre-date current city plans, zoning updates, regulations, and market changes, and are at odds with newer development proposals and plans. The City has recently adopted plans to improve the North Delaware Waterfront, to facilitate the development of newer R&D industries on the Lower Schuylkill Waterfront, and to expand the East Coast Greenway along the waterfronts in Philadelphia. These transitioning areas face conflicts between existing waste and recycling facilities and new uses that are taking root. In some cases, facility modifications and screening may be sufficient to enable these uses to co-exist. In others, relocation may be the best option.

Many smaller scrap and salvage facilities are located along legacy industrial land alongside rail lines through residential districts and/or are located within residential districts themselves. Ideally, these uses should be discouraged from expanding and should be relocated to areas that are more compatible with these uses.



The **Lower Schuylkill Masterplan** recommends strategies to reinvigorate the Lower Schuylkill waterfront with new industries. The plan includes developing three campuses: an Innovation District, Logistics Hub, and Energy Corridor; and adding a continuous new road with pedestrian/bicycle trail. This plan will require the negotiation with existing land owners to complete the vision.



Alternatives

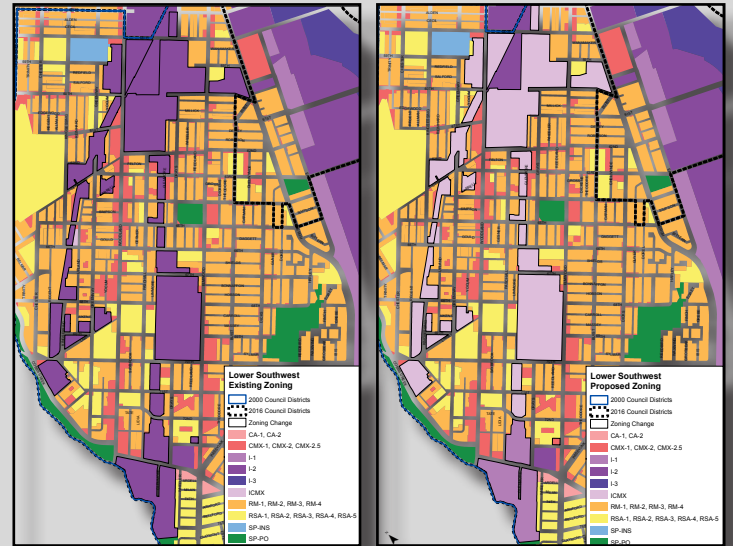
Rezoning

Since scrap and salvage facilities are only allowed in “I-3” and “I-2” Industrial Districts, rezoning can help deter future location and expansion in areas where the city actively discourages industrial use, such as adjacent to residential properties and along future park and trail extensions. In 2013, many of the legacy industrial areas adjacent to residential dwellings in the Lower Southwest were rezoned to “ICMX” and the provisions of “ICMX” were revised to prohibit auto-related uses. These actions force any new or illegal scrap and salvage activities to appear before the Zoning Board of Adjustment when requesting expansion or changes in use. For the most part, these requests are denied by the ZBA, particularly when neighborhood groups come out in protest against the facilities. The remapping does not cease existing auto operations, which sometimes double as salvage shops, but the intent is to phase these uses out as shops cease operations.

Prior to rezoning industrial lands, proposals should consider the need for industrial protection areas as identified in the *Phila2035 Citywide Vision*, and zoning recommendations of *Phila2035 District Plans*. Recommendations in both sets of plans are informed by Philadelphia Industrial Development Corporation’s (PIDC’s) Industrial Land and Market Strategy for the City of Philadelphia and by discussions with community members, elected officials, and other key stakeholders.

Relocation

Rezoning is not an option for areas where the city would like to actively attract industrial users. In some cases, the competition for well-positioned industrial sites is high. PIDC works together with the Philadelphia Commerce Department and the Philadelphia City Planning Commission to identify sites where industrial development can and should happen in a more deliberate way. These areas either have carefully considered plans, such as the Lower Schuylkill Master Plan and the Master Plan for the Navy Yard, or are included in some way by the Industrial Land and Market Strategy. PIDC maintains an active portfolio of industrial sites throughout the city, and actively works to fulfill the vision of the plans that have been produced. In some cases, this means assisting waste, recycling, and scrapyards businesses with relocation from rapidly changing areas to heavy industrial corridors that are more compatible with their operations and long-term business plans.



In October of 2013, Bills 130768 and 130813 were passed by City Council, changing the zoning designation of many industrial properties in Lower Southwest to ICMX, and revising the rules of ICMX to prohibit vehicle sales, rental, repair, maintenance, finishing, and vehicle equipment and supplies sales and rental.

Negotiating with property owners for the acquisition of property for industrial development is sometimes difficult. PIDC must approach a property owner, negotiate a fair sales price, get authorization from City Council, and assist with relocation efforts for the displaced business. Not all businesses have an incentive to sell, and some are difficult negotiators. Additionally, relocation is sometimes challenging due to the relatively scarce amount of land in Philadelphia that are suitable for scrap and salvage operations. In some cases, particularly where an extraordinary benefit would exist, the City could consider condemnation. Relocation assistance should only be offered to businesses that conduct operations in accord with all city, state, and federal regulations. Relocation may also negatively impact the employees who would need to travel further away for their jobs.

There are currently 4,927 acres of land in Philadelphia dedicated to “I-3” industrial uses, and 7,082 acres of land dedicated to “I-2” industrial uses; however, many of these areas are occupied by existing industrial users. Some industrial areas are in the floodplain or immediately adjacent to waterways, and would be inappropriate for open air storage of contaminants that sometimes accompany automobile parts. Some areas are in environmental justice communities that already have a high number of environmental challenges. One potential next step could be assess the city’s industrial land to identify areas of opportunity where scrap and salvage yards can be directed.



Alternatives

Environmental Concerns

The city, state, and federal government all have programs and regulations that address nuisances caused by improper siting and handling of waste materials. While many outstanding issues are a matter of enforcement, there may still be opportunities to strengthen regulations, particularly where activities contribute to non-attainment of environmental standards and/or are directly related to impacts on human health and quality of life. Since the pinchpoint is often a matter of enforcement, any discussion of new regulation must be tied specifically to an intended outcome, and include a strategy for compliance.


Environmental programs, such as DEP's Environmental Education Grants and EPA's Brownfields and Environmental Education Grants can be used by communities, educators, and non-profit groups to assess problems, develop strategies for brownfields reuse and cleanup, evaluate regulations, identify resources, and develop education materials to both prevent future contamination and to educate the public about how to report violations. One best practice that could be added to the toolbox is to make sure that scrap and salvage yard owners are educated on best practices to ensure that they put their best foot forward to protect the environment and to follow existing regulations.

Soil Quality

Soil quality is broadly regulated by the Pennsylvania Department of Environmental Protection and the United States Environmental Protection Agency. Regulations and programs range from specifically prohibiting the placement of contaminated fill, to regulating the cleanup of releases from underground storage tanks, to regulating the handling of hazardous material, to providing relief for owners wishing to reduce their liability by eliminating human exposure to hazardous soil.

Best management practices for ensuring clean soil can occur before the point of contamination and after contamination has already occurred. In order to prevent contamination, scrap and salvage yards should follow strict practices to ensure that all hazardous materials are handled correctly, and that they do not impact the soil. EPA offers guidance to auto salvage and scrap recycling facilities in two separate guides that address best practices (see Appendix A). These practices offer guidance to facilities in operation, as well as to state

**POLLUTION PREVENTION PRACTICES
for Automotive Service and Repair Shops**



**Best Management Practices (BMPs)
for automotive service and repair shops**

Stormwater pollution has many sources. One of the most common is the illegal dumping or spilling of wastes directly into storm drains, like pouring used motor oil or paint directly into a storm drain.

As part of its Stormwater Management Plan, one of the goals of STOPPP is to control pollutants discharged to the municipal storm drains from commercial and industrial businesses.

Best Management Practices, or BMPs, can help minimize the discharge of pollutants from your facility.

Operate a Clean, Dry Shop

- Sweep or vacuum the shop floor frequently.
- Designate specific areas indoors for parts cleaning.
- Clean up any spill promptly.
- Keep rags, damp mops, absorbents, and other cleanup supplies readily accessible to all work areas.
- Never sweep or flush wastes into a sanitary sewer or storm drain.

Prevent Spills and Leaks

- Drain fluids from leaking or wrecked vehicles as soon as possible. Use drip pans and plastic tarps.
- Promptly transfer drained fluids to a designated waste storage area.

Practice Waste Reduction and Recycling

- Recycle automotive fluids, solvents, cleaners, absorbents, and washwaters, when the useful life is finished.
- Mix only the amount of paint needed for a job.
- Use self-contained sinks and tanks when cleaning with solvents.
- Reuse water used in flushing and testing radiators.
- Automotive fluids are NOT acceptable for disposal to the sanitary sewer, storm drain, or garbage.

Properly Manage Shop Wastewaters

- Wastewaters must be collected for off-site disposal or discharged to the sanitary sewer, if permitted. Examples include wastewaters from controlling overspray or dust in the paint booth, degreaser washoff, wet sanding, radiator flushing, floor washdown, mop water, or other production uses.
- Check with the local sewer agency about disposal requirements.

Protect Outdoor Work and Storage Areas

- If work or materials storage must be done outdoors, prevent potential pollution of rain and runoff by covering and/or berming work areas.
- Check with the local building authorities about structural alterations.

Properly Manage Vehicle Washwaters

- Soapy or oily vehicle washwaters must be either collected for off-site disposal or discharged to the sanitary sewer.
- Check with the local sewer agency about washwater disposal requirements.
- A commercial car wash may be an alternative if your facility is not equipped properly.
- Soapy or oily vehicle washwaters are NOT acceptable for disposal to the storm drain.

Properly Manage Raw and Waste Materials


- Follow all hazardous materials and hazardous waste storage and disposal requirements.
- Oil or solvent-saturated absorbent must be managed as a hazardous waste.
- Make sure solid waste containers are in good condition and secured against wind, leakage, or vandalism.

Label and Inspect Storm Drain Inlets

- Label storm drain inlets on your property to alert employees and customers that no dumping of wastewaters or tainted washwater is allowed.
- Prevent accumulated pollutants from washing down storm drains on your property by inspecting drains on premises frequently.
- Sweep or vacuum work areas and parking lots regularly.
- Remove debris and dispose of it in the trash.
- Never wash down areas with hoses and avoid using blowers which only displace residues.

Notify and Train Employees to Practice Pollution Prevention

- Post notices of appropriate practices such as those in this flyer, and train employees on their use.
- Set up a system to make it easy to separate, store, and recycle wastes.



San Mateo Countywide
Stormwater Pollution
Prevention Program
(STOPPP)
555 County Center
Redwood City, CA 94063

A program of the City/County Association of Governments
(C/CAG)

Best Practices Guides: The County of San Mateo, California, has developed a best practices guide for automotive service and repair shops. This guide could be used as a model to develop and disseminate best practices for scrapyards and auto wrecking operations in Philadelphia.

and local regulators. One gap that could be filled to ensure that facility owners are following these best management practices would be to require owners to submit their own best management practices to a governmental entity. This would place the burden more on the facility operator to make sure they understand impacts and have proper mechanisms in place to manage potential pollution causing substances.

For guidance on how to clean up contaminated soil, the EPA publishes best management practices for soils treatment technologies and the DEP offers a technical guidance manual to meet the Land Recycling and Environmental Remediation Standards Act of 1995. This guidance is used when a property owner chooses to undergo cleanup, mainly upon redevelopment or changes in ownership. There is yet to be a comprehensive brownfields cleanup program that requires existing property owners to assess and remediate current conditions.

There is currently a brownfields funding working group in the City of Philadelphia that discusses grant opportunities and progress on brownfields remediation. At one point, the city had a brownfields coordinator, who would pursue and shepherd cleanup grants on behalf of the city, but that position is no longer in place.



Alternatives

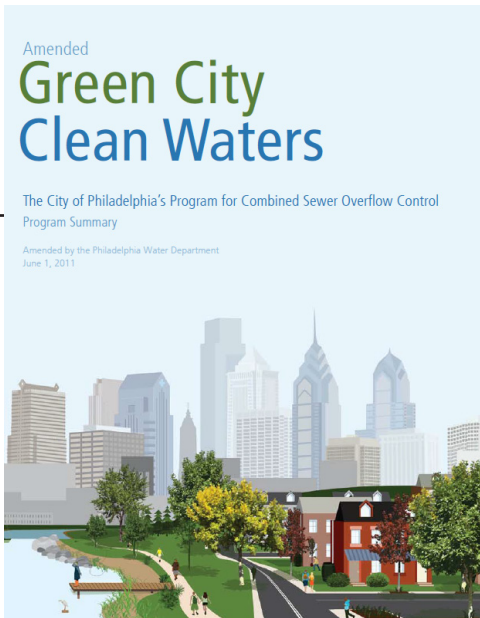
Water Quality

The City and State have responsibilities to meet or exceed all standards as set forth by the US Clean Water Act. This act sets a basic structure for regulating discharges of pollutants into water and surface water, including pollution control programs. Pennsylvania adopted its own Stormwater Management Act in 1978 to respond to the impacts of stormwater runoff due to increasing land development.

The US Clean Water Act includes mechanisms for monitoring and compliance, including the National Pollutant Discharge Elimination System (NPDES) Program, which regulates point source pollution from single identifiable sources, and educational materials and funding through Section 319 grants for non-point source pollution from diffuse sources, such as stormwater runoff or rainfall. The PADEP includes a Bureau of Clean Water that oversees the statewide Clean Water Program. This unit establishes water quality standards, plans for municipal sewage management, and offers NPDES and Water Quality Management Permits, among its other responsibilities. This unit also coordinates with federal agencies and local authorities.

The City of Philadelphia has developed a unique approach to meet federal and state requirements, while reducing its reliance on gray infrastructure. Its *Green City, Clean Waters Program* includes regulations, guidance, and incentives for implementing a series of land-based approaches to reduce burdens on sewers, increase green infrastructure, and thereby reduce runoff from pollutants into rivers and streams. Aspects of the Green City, Clean Waters Program that could be applicable to scrapyards include stormwater improvement grants, which could reduce a property owner's stormwater bill through the creation of green infrastructure, and requirements for infiltration measures on any new development proposal with a size of at least 15,000 square feet. The Water Department does not recommend infiltration of stormwater through contaminated soil, so these stormwater measures may require assessment and remediation prior to approval. A cross-departmental Clean Waters Task Force will meet periodically to implement the goals of the Green City, Clean Waters Program.

The *Phila2035 Citywide Vision* sets out recommendations for improving water quality, such as providing setbacks to rivers and streams and enhancing and completing the city's trail network. Implementation of these goals may require a combination of negotiation with landowners, creating and enforcing zoning code regulations to provide setbacks, and in extreme circumstances, the use of eminent domain.



Philadelphia's *Green City Clean Waters Program* for Combined Sewer Overflow Control was adopted in 2011. This program represents an agreement with regulators to tackle stormwater and combined sewer overflows relying substantially on green infrastructure investments.



Philadelphia's Trail Plan identifies priority trail projects citywide to promote the advancement of the Philadelphia Trail Network. Philadelphia continues to make the maintenance and expansion of its trail network a priority, particularly along watershed parks and rivers.



Alternatives

Air Quality

The United States Environmental Protection Agency sets standards of air quality for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, and lead. States and municipalities are responsible for creating strategies to improve air quality and to meet these standards. The City's Division of Air Management Services, through the Department of Public Health, monitors air pollutants and enforces standards. However, poor air quality can be attributed to a number of sources, and the City must identify and resolve the most egregious sources first. The City also implements programs that will change behaviors and offer mechanisms beyond those that require enforcement. This process has dramatically improved the city's air quality over time.

The Division of Air Management Services is also responsible for responding to individual complaints that require investigation and enforcement. The Air Management Code very generally states that "no person shall discharge, or allow the escape of air contaminants to the atmosphere which are prohibited by or are in excess of those permitted..., which exceed the density or opacity limits established by the Board, or which result in or cause air pollution or an air pollution nuisance." These regulations were written to broadly address pollutants entering the atmosphere that pose a risk to health and welfare. Some frustrations that residents have voiced, however, are that they perceive that air pollution is occurring, but have a difficult time either catching an operator in the act, or proving that the pollution is spreading, thereby creating a nuisance. They find that reporting is difficult, and they often see no resolution to their issues. Intuitively, they know that certain processes can cause pollution, and they can even smell or see smoke, but there is still a gap between perception and regulation and enforcement.

The Clean Air Council is Philadelphia's oldest non-profit that has operated even prior to the establishment of EPA. This organization partners with the City's Division of Air Management Services, and also pursues its own projects and programs. Clean Air Council recently partnered with Drexel University and New Kensington CDC to take air quality samples adjacent to scrapyards. They also worked with the Somerset Neighbors for Better Living to create air quality legislation to propose to City Council, funded by an EPA Environmental Justice Small Grants Program. As a direct

result, the City's Air Management Code was recently amended to prohibit the cutting of rubber tires (Bill #170470, introduced by Councilmember Squilla on May 11, 2017). While this action has been successful in starting a conversation about best practices, and while it addresses a specific behavior that has been implicated in generating air pollution, it still only captures one small part of the problem and creates a regulation that may be difficult to enforce.

Crime

According to the National Insurance Crime Bureau, Pennsylvania ranked second in the country for stolen metal insurance claims from 2013 to 2015, with 2,819 claims. Philadelphia was second only to New York in claims for metro areas, at 1,809. The largest number of metal theft claims emanated from Ohio. In response, elected officials have instituted regulations and programs to reduce the incidence of theft. Ohio created an electronic registry to coordinate scrap-metal data and track the activities of sellers and the vehicles used by those sellers. The intent is to create a database that can be used by law-enforcement officers to solve scrap-metal theft cases. Columbus, Ohio, went one step further, to require scrap yards to submit information to police online each day about metals sold. The city also maintains a 'do not buy from' list for scrap yards and pawn shops to eliminate sellers who have previously been convicted of theft. (Source: Ohio again leads U.S. in insurance claims for metal thefts, November 25, 2016: Columbus Dispatch). In 2015, Pennsylvania State Representative John Taylor sponsored House Bill 1072, to create a scrap facility registry with the Office of Attorney General and to impose certain restrictions on purchase and reporting requirements of operators. The intent of the bill was to reduce crime associated with the trade by making investigation and enforcement simpler, and creating uniformity among operators. The bill died in committee. This year, Representative Taylor issued two memoranda, requesting sponsorship for legislation to amend the Scrap Metal Theft Prevention Act by requiring sellers to furnish proof of identification, requiring purchasers to hold items for 14 days, and prohibiting cash transactions; and implementing a state-wide scrap metal transaction database.

Crime also occurs through illegal dumping adjacent to scrapyard locations. The City's Zero Waste and Litter Cabinet is working on ways to increase enforcement to prevent litter and short dumping.



Alternatives

Compliance

Many disparate entities are involved in enforcement and compliance when residents report violations. Citizens are often confused by who to call, but generally make complaints to Police, Fire, L&I, Health, and 311. Violations sometimes span various departments. Response time is often critical as many violations are related to specific activities.

The City has created a Scrap Yard Task Force, made up of representatives from the City and State to monitor compliance with environmental quality standards. This task force makes monthly visits to selected facilities; however, the limited number of resources makes it difficult to capture all violations, and violators must be caught 'in the act'. When issues are identified, the task force, working through the Department of Licenses and Inspections, can issue violations. Failure to address violations can result in facility closure and/or Court action. The city has limited resources to pursue enforcement actions, however, and often closed facilities mean that waste and debris are left on site, leaving the city with additional problems.

The scrapyard taskforce has been helpful in responding to specific instances; however, its membership is small, and there are not enough resources to address specific complaints in a timely manner. Task force members recall an environmental response unit that used to exist in the city's Police Department, which was particularly helpful. Task force members have also indicated that it would be helpful to include PADEP Water Quality and Industrial Waste Units on the task force.

The Department of Licenses and Inspections requires permits for auto wrecking and salvage yards, and maintains all information in their eCLIPSE database. It would be helpful if the search function were available to members of the scrapyard task force to determine if facilities are currently licensed, if violations are persistent, and if other city agencies need to be alerted about potential issues.

Finally, it is not always clear which agency has purview over which violation, and the extent of their enforcement power. Materials should be developed that detail issues and parties that can appropriately respond.

Previous iterations of the scrapyard taskforce included a larger Philadelphia Automotive Scrap Yard Compliance and Enforcement Program run out of the Managing Director's Office. This program coordinated actions and responses in collaboration with the US EPA, PA DEP, The Southwest Philadelphia Scrap Dealer's Association, PA Recycling Trade Society, and multiple city agencies including Planning, Health, Water, Commerce, and others.

State Practices Across the Country

Vermont

Vermont has a Salvage Yards Program in their Department of Environmental Protection, and their Agency of Natural Resources has a Salvage Yard Rule. All salvage yards must have a permit displayed on the front of their operation. Upon application, permits must include an application form and fee, certificate of approved location (zoning), site map with buildings, use, fences, entrances, storage of materials and operations, distance to roads, and location of surface waters and wetlands. The State may also ask for more information to ensure the protection of natural resources.

Michigan

In 2014, Michigan passed a bill to prevent scrap metal theft. The legislation requires photos to be taken of the person selling the scrap and material sold and allows for the creation of a database of all people selling materials to scrap yards. It also requires scrap yard owners to pay by check to a physical address for all materials over \$25.

California

California requires a registry of transactions, a three-day waiting period for payments, and an honest effort from scrap yard owners to determine if metal is stolen. There are also fines for metal recyclers who knowingly buy material stolen from government or utilities.

Texas

The Texas Commission on Environmental Quality has a website devoted to resources for auto salvage yards in Texas to reach compliance.



Alternatives

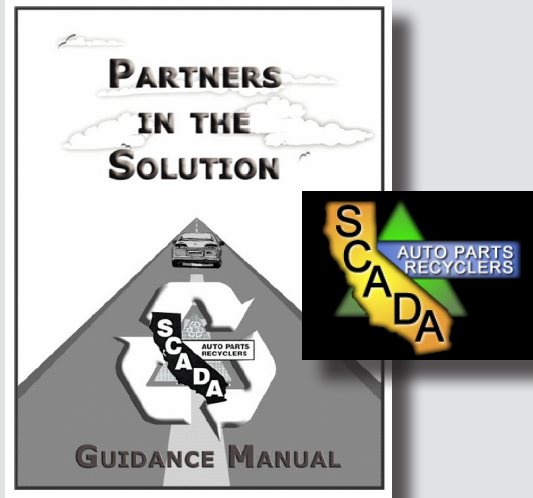
Modernization and Incentives

Not all scrapyards operations can or should be relocated, and not all operations are public nuisances. The scrap and recycling industry is a helpful way to reuse materials that would otherwise end up in landfills. In some cases, these industries could benefit from interventions and incentives that could improve operations, and make them more efficient and friendly to the neighborhood and streetscape. Modernized industry could also be more useful partners to the city's tax base and could make some of our more traveled corridors more attractive. There is a need in Philadelphia for expanded resources to incentivize modernization where appropriate and relocation where necessary, especially in areas with rapidly changing uses and those in which the City and PIDC are executing planned redevelopment.

Education, Outreach, and Behavior

During interviews with local enforcement agencies, the need for more education and outreach came up numerous times. Regulation and enforcement can only go so far, and sometimes the largest gap to changing behaviors and attitudes is through education. Education can mean a number of things, from educating the public about their own rights and responsibilities, to educating scrap yard owners about proper methods of operation, to educating the public sector about possible directions forward.

State of California Auto Dismantlers Association (SCADA) won an environmental award from the EPA in 2004 for its **Partners in the Solution Program**. Through this program, SCADA published a manual of standards to be met by automobile salvage yards, with plans of annual audit visits for each partner. The program also planned to include training and technical assistance. Partnerships like these can help build a responsible network of scrap recyclers.



Non-profits, such as the Clean Air Council and New Kensington CDC, and educational institutions, such as Drexel University, play a key role in the advancement of education and outreach. These organizations work collaboratively to expose issues, to raise awareness, and to determine solutions. They also have the ability to pursue grant funding, such as through EPA's Environmental Justice Small Grants Program and educational grants. Future partnerships can build off of the work that has already been completed and compiled by these organizations.

Revolution Recovery in the North Delaware District of Philadelphia, has made headlines for its innovative and environmentally conscious construction and demolition recycling. Eighty percent of collected material is recovered and recycled, adding up to 500-600 tons of material per day. The company is a member of the U.S. Environmental Protection Agency's WasteWise Program, which demonstrates how to reduce waste and educates businesses about the benefits of recycling construction and demolition waste.



Photo Source: Revolutionrecovery.blogspot.com



Photo Source: cars.com

Linders Inc., in Worcester, MA, has adopted a contemporary business model to keep up with an evolving and growing demand for used auto parts worldwide. Once a car is acquired, the fluids are drained and it's logged in and given a stock number. It is then sent to a drop area, where inventory personnel document all of the saleable parts with a unique part number. All parts are yanked, cut, or melted before the car is crushed into a square of metal, which is then sent to a smelting plant. Buyers from around the world can log on to auction sites at any time. (Auto-recycling business becomes high-tech: March 16, 2014: telegram.com).



From the industry side, the Automobile Recyclers Association includes membership of multiple trade associations and private sector entities. Many organizations, such as the State of California Auto Dismantlers Association and the Pennsylvania Automotive Recycling Trade Society, create programs that provide assistance to member businesses.

One way to address issues associated with scrap and salvage yards is to change the amount of waste that ends up in these facilities. In 2016, Pennsylvania State Representative R. Lee James introduced legislation to make procurement of recycled steel for public works projects easier. The hope is to expand the use of recycled steel, and hopefully reduce the amount of steel in landfills and scrapyards.

The Mayor's Zero Waste and Litter Cabinet was created in 2016 to identify ways to reduce the incidence of waste and litter in Philadelphia. Their recently released Action Plan emphasizes reducing and managing waste, increasing recycling, creating partnerships with residents, community organizations, government, non-profits, and institutions, cleaning public spaces, maintaining index data, changing behaviors, and engaging the community.

Mayor Kenney's Zero Waste and Litter Cabinet was created to help the city reach a broad sustainability goal of Zero Waste by 2035. The Cabinet coordinates across City departments, partner public agencies, and community and private sector stakeholders, and includes sub-committees to work on five actions: 1) Zero Waste, 2) Litter Enforcement and Cleaner Public Spaces, 3) Data, 4) Behavioral Science, 5) Communications and Engagement. The Cabinet has created an action plan that includes recommendations, policy objectives, and coordinated initiatives to reach its progressive goal. http://cleanphl.org/wp-content/uploads/2017/07/Zero_Waste_and_Litter_Action_Plan.pdf

"Philadelphia's long-term "Zero Waste" objective is to fully eliminate the use of landfills and conventional incinerators by 2035. To do this, Philadelphia will reduce waste generation and increase waste diversion by 90 percent by 2035 (based on 2015 waste totals), with the remaining 10 percent utilized as waste to energy."



Follow Up and Next Steps

Many of the concepts proposed in this paper require the coordination of multiple city departments, agencies, elected officials, and public interest groups. This issue paper has been vetted by members of the Managing Director's Office, L&I, Revenue, Streets Sanitation Unit, Water, Law, Commerce, Health, Sustainability, PIDC, Clean Air Council, New Kensington CDC, Public Interest Law Center, and Councilman Green's Office.

Next steps should involve convening an interdepartmental group of officials to accomplish the following:

- Evaluate structure of current scrapyard taskforce to ensure that it operates effectively. Expand to include additional policy and enforcement agencies, and partner with scrap companies, non-profits, trades groups, and community leaders.
- Use eCLIPSE database to map licensed facilities and track non-licensed facilities, complaints, and enforcement actions. Add compliance responses from all agencies.
- Ensure that Philadelphia 2035 District Plan recommendations take into account scrapyard issues in neighborhoods and complete the zoning remapping process in accord with Philadelphia 2035 District Plans. Include setbacks for waterways and trails.
- Assess land holdings and truck routes in Philadelphia to determine appropriate locations for new and displaced scrapyards.
- Review environmental regulations to determine gaps and redundancies. Tighten permitting requirements for new and expanding facilities to include locations of all activities and operations and best management practices. Include enforcement entities to ensure that regulations can be enforced.
- Identify programs and incentives that can be used to beautify and modernize permitted facilities in appropriate locations.
- Engage communities to understand concerns and to educate about waste reduction, diversion, and how to report complaints. Create a document that explains who to call for various issues.
- Educate scrap and salvage operators about existing regulations, and explain the positive benefits of being a good neighbor in their communities.
- Consider reinstating the Environmental Crimes Unit in the Philadelphia Police Department.



Acknowledgments

Author

Martine Decamp, AICP Philadelphia City Planning Commission

Contributors

Nic Esposito	Philadelphia Zero Waste and Litter
Russell Zerbo	Clean Air Council
Andrew Goodman	New Kensington CDC
John Tracy	New Kensington CDC
Dr. Ali Kenner	Drexel University
Kate McNamara	Philadelphia Industrial Development Corporation
Jim D'Agostino, Jr	Philadelphia Water Department
Cynthia Ngaba	Philadelphia Department of Revenue
Frank Iannuzzi	Councilman Derek S. Green
Ralph DiPietro	Philadelphia Licenses and Inspections
Scott McGrath	Philadelphia Recycling Office
Marisa Lau	Philadelphia Recycling Office
Patrick O'Neill	Philadelphia Law Department
Dennis Yuen	Philadelphia Law Department
Amy Laura Cahn	Public Interest Law Center
John Haak	Philadelphia City Planning Commission
David Fecteau	Philadelphia City Planning Commission
Timothy O'Leary, intern	Philadelphia City Planning Commission
Matthew Skelly, intern	Philadelphia Industrial Development Corporation



Honorable Jim F. Kenney
Mayor

Anne Fadullon
Director of Planning and Development

Philadelphia City Planning Commission

Catherine Califano
1st Deputy Director

Eleanor Sharpe, AICP, LEED AP
Executive Director

Laura M. Spina
Director, Community Planning

R. David Schaaf, RA
Director, Urban Design

Marty Gregorski
Director, Development Planning and Zoning

John Haak, AICP
Director, Planning Policy and Analysis

Darshna Patel
Director, Geographic Information Services

Donna J. Carney
Director, Citizens Planning Institute

2017 PHILADELPHIA CITY PLANNING COMMISSION MEMBERS

Anne Fadullon, *Chair*
Joseph Syrnick, *Vice Chair*
Michael DiBerardinis
Rob Dubow
Patrick Eiding
Harold T. Epps
Cheryl Gaston, Esq.
Maria Gonzalez
Nancy Rogo Trainer, FAIA, AICP
Ariel Vazquez

