

Amendments to Title 19, "Comprehensive Plan"

T-4 Solid Waste Management Plan Update

~~19.80.080 Solid Waste Management.~~

~~A. Solid Waste Issues.~~ All of unincorporated Pierce County, its cities and towns, Fort Lewis and McChord AFB face the same issues:

- ~~• How to ensure 20 years of disposal capacity based on future populations;~~
- ~~• How to ensure that solid waste disposal facilities are sited and operated to meet State and local siting and permitting requirements to protect the environment;~~
- ~~• How to provide cost effective provision of waste reduction and recycling programs and to encourage private businesses to provide sufficient processing capacity;~~
- ~~• How to ensure long range financing of chosen options;~~
- ~~• How to ensure backup disposal facilities; and~~
- ~~• How to reduce illegal dumping of waste and nuisance vehicles.~~

~~1. Pierce County.~~

~~a. Siting a solid waste facility.~~ The siting of a waste disposal facility, regardless of what type, poses a number of related problems. These include choosing an environmentally suitable site that fits the particular type of facility which is (1) acceptable to the residents of the County, (2) meets the long term needs for disposal, and (3) is cost effective. This is true for the siting of landfills, transfer stations and composting facilities.

~~In choosing disposal options, the basic issue becomes one of cost and acceptability to the community. Not all residents can agree on the environmental soundness of one option. Some will argue for not siting a disposal facility within the County; some will argue for the siting of one type of facility but not another type; while others will argue for and against export out of County. Because of this decision making climate, the long term costs of any option play an important role. It is essential to have a backup disposal option at all times.~~

~~b. How to achieve recycling goals in a cost effective manner and in coordination with the activities of private industry.~~ The County can design and work with the haulers and recyclers to implement all sorts of recycling collection programs and facilities but these can also be costly. The County needs to continue to build incentives into its recycling programs, such as in the existing residential collection program; encourage private recycling and composting businesses; and devise new economical ways to remove various wastes from the disposed waste stream.

~~c. How to handle special wastes, such as household hazardous waste.~~ Pierce County, the Tacoma Pierce County Health Department (TPCHD), and all jurisdictions need to provide funding for the implementation of the Local Hazardous Waste Management Plan and for collection programs and facilities for household hazardous waste. Funding is specifically needed for educational programs for businesses about how to properly handle moderate risk waste.



1 ~~d. The need to identify which solid waste facility sites are "essential public~~
2 ~~facilities" and plan for those sites to be long-term solid waste facility sites~~
3 ~~unlikely to convert to other uses.~~ For instance, landfills are solid waste facilities
4 for a long time, whether or not they are closed and no longer taking waste for
5 disposal. This is because of the need for continued groundwater monitoring, gas and
6 leachate collection and maintenance of a capping system and the advisability of
7 using them for other than siting of residential development. The trend is towards
8 using existing solid waste facility sites for other, needed solid waste facilities, such
9 as transfer stations or composting facilities. This makes sense economically, in that
10 leachate collection systems and other closure designs for landfills match the
11 operation needs for other types of solid waste facilities. Traffic patterns, for the
12 most part, remain unchanged with conversion to another type of facility and,
13 therefore, should create no additional problems to the surrounding community. It
14 also makes sense because there is no need for a public agency to find a new site
15 which helps to reduce the siting issues, such as complaints about odor and traffic.
16 ~~e. How to reduce illegal dumping of waste and nuisance vehicles.~~ During the
17 development of the update to the solid waste plan, citizens testified about the
18 increasing problems with illegal dumping of waste and nuisance vehicles and the
19 lack of effective response from the many agencies charged with enforcement. The
20 Council adopted a number of goals and policy recommendations about resolving the
21 problems. Directed by the County Council to prioritize needs and actions, the Solid
22 Waste Advisory Committee developed a broad strategy encompassing five main
23 areas: Coordination, Cleanup, Prevention, and Enforcement and the need to
24 reprioritize funding.

25 ~~2. Tacoma.~~

26 a. Backup disposal capacity for the waste to energy facility: Tacoma has
27 established a contract with a private vendor, Pierce County Recycling, Composting
28 and Disposal dba LRI, for long-haul disposal and for in-county disposal.
29 b. Closure plans for the Tacoma Landfill: The Tacoma Landfill was granted an
30 extension to continue land filling until 2004 and the City may request two additional
31 five-year extensions as allowed under the Consent Decree. The City plans to fill the
32 Central Area to the maximum grade allowed by its permit. The Consent Decree
33 includes requirements for long-term groundwater monitoring, gas and leachate
34 collection and household hazardous waste collection.

35 ~~3. Fort Lewis/McChord AFB.~~

36 a. Need to finalize its long-term disposal plan: Fort Lewis is revising its
37 comprehensive solid waste management plan now that the WTE facility is no longer
38 operable and the Fort Lewis Landfill cannot be expanded. The Fort is currently
39 disposing of waste out of County.

40 ~~B. Solid Waste Regulatory Environment.~~

41 ~~1. Relationship of Federal, State, and Local Waste Regulations.~~ In Washington,
42 local governments have lead responsibility for solid waste management and
43 moderate-risk waste management. They must manage and handle waste according
44 to state laws which are comprehensive in scope and include specific mandates for
45 management, handling, and disposal systems. Local governments are required to
46 adopt a local hazardous waste plan for moderate-risk waste which is generated by
47 households or small businesses and which is exempt from the State's Dangerous



1 Waste Regulations. Commercial generators of larger quantities of hazardous waste
2 fall under the management responsibilities of State and Federal regulations.
3 Federal regulations provide "umbrella" authority for waste regulations which are
4 ultimately implemented by local governments. The State is delegated the authority
5 to implement the federal Resource Conservation and Recovery Act (RCRA).
6 Subtitle F of RCRA states that all federal, state and interstate local requirements are
7 applicable to federal facilities that have any jurisdiction over a solid waste
8 management facility or disposal site or that engage in any activity that results in the
9 disposal of solid or hazardous waste. This means that Fort Lewis and McChord
10 AFB must meet the State's siting, design and permitting requirements for solid waste
11 facilities and have been directed by the Department of Defense to develop
12 comprehensive procurement plans, and to coordinate with local jurisdictions on
13 recycling public education and outreach programs.

14 **2. State Regulations, Priorities and Mandates.**

15 a. **Solid Waste.** The State Solid Waste Management Reduction and Recycling Act
16 (RCW 70.95) designates the Washington Department of Ecology (WDOE) as the
17 State department responsible for overseeing solid waste regulations. The
18 administrative codes which implement the law's requirements are the Solid Waste
19 Handling Standards (WAC 173-350) and Criteria for Municipal Solid Waste
20 Landfills (WAC 173-351), which provides standards and criteria for the location,
21 design, operation, and maintenance of solid waste facilities. Many types of solid
22 waste facilities are required to have solid waste permits, which require regular
23 monthly and annual reports about their operation. Some recycling businesses or
24 other processing facilities are either exempt from the permit process or can obtain a
25 permit deferral. If they do not continue to meet the handling standards criteria or
26 annually report their activities, they may be required to obtain a solid waste permit to
27 operate. In Pierce County, the Tacoma Pierce County Health Department (TPCHD)
28 administers the Solid Waste Permit process. WDOE has ultimate approval authority
29 over solid waste permits.

30 To coordinate and ensure compliance with solid waste management planning and
31 land use and solid waste permit requirements, the Pierce County Council adopted
32 Chapter 8.30 of the Pierce County Code, Solid Waste Handling System, which
33 provides a process to designate those solid waste facilities which have current Solid
34 Waste Permits and makes it unlawful to handle solid waste at facilities other than
35 those designated by the County.

36 The Washington Utilities and Transportation Commission (WUTC) grants
37 certificates (franchises) authorizing solid waste collection in designated franchise
38 districts for unincorporated areas. Solid waste collection certificates authorize the
39 private collection of garbage and refuse from all residential and non-residential
40 generators and recyclable materials from residential sources. Rates requested by
41 collection companies must reflect the State's solid waste management priorities and
42 the local government's minimum service levels. The WUTC does not govern the
43 collection rates of city collection utilities or city contracts with private haulers. If a
44 city or town chooses not to contract for collection or to have its own collection
45 utility, then the WUTC regulates by default as in unincorporated areas. As a result
46 of Congressional actions which limited the availability to contract for commercial
47 recycling collection, the WUTC no longer regulates rates or service areas for the
48 transportation of recyclable materials from businesses, although commercial



1 recyclable haulers must possess a common carrier permit and show proof of
2 insurance to operate in the State.

3 State law authorizes counties to own and operate disposal facilities but prohibits
4 counties from operating a solid waste collection system, otherwise known as a "solid
5 waste utility." Cities and towns are delegated authority to establish collection
6 utilities. Counties are allowed to establish a collection district to require mandatory
7 solid waste collection and a disposal district which allows a county to levy a tax to
8 fund solid waste. Pierce County has not established either a disposal or a collection
9 district.

10 Although counties cannot contract for solid waste collection, they can contract for
11 residential recycling collection. In 1990, Pierce County chose to work with the
12 existing franchised solid waste haulers to implement residential recycling collection
13 programs. Cities and towns work with their contracted haulers to provide the
14 services and have implemented similar recycling collection programs in coordination
15 with the County. If this system does not continue to provide residents with adequate
16 service, the Solid Waste Plan provides alternatives, including the possibility of
17 contracting for recycling collection and mandatory collection.

18 **b. Solid Waste Comprehensive Planning.** State law requires counties, in
19 coordination with their cities and towns, to adopt comprehensive solid waste plans
20 for the management, handling, and disposal of solid waste for 20 years and to review
21 and revise the Plan at least every five years. Cities and towns may choose to be joint
22 participants in the plan or delegate planning to the County or choose to do their own
23 plan. The City of Tacoma has chosen to be a joint participant in the Plan with the
24 County. Other cities and towns have delegated planning authority to the County.

25 State regulations are specific and detailed as to: what is required within
26 comprehensive solid waste management plans, goals and policies, priorities, criteria
27 for an integrated handling system, programs that must be implemented, the criteria
28 for siting, design and operation of solid waste facilities, and process for review and
29 adoption of plans and review process for programs.

30 State goals for waste management are:

- 31 (1) — waste reduction;
32 (2) — recycling, with source separation of recyclable materials as the preferred
33 method; 19.80.080
34 (3) — energy recovery, incineration, or landfilling of separated wastes; and
35 (4) — energy recovery, incineration, or landfilling of mixed wastes.

36 The State's goal is to achieve a 50 percent recycling rate by 2007. Other priorities
37 include waste reduction and source separation as "fundamental" solid waste
38 management strategies with the ultimate goal of "source separation of all material
39 with resource value or environmental hazard." (RCW 70.95) The State identifies a
40 number of types of wastes, such as vehicle batteries, that must be recycled or banned
41 from disposal facilities and creates state management programs for them. The law
42 also emphasizes reduction in excessive packaging and encouragement of market
43 development for recyclables. State and local governments must adopt procurement
44 plans to buy recycled products.

45 The State requires that counties establish a Solid Waste Advisory Committee
46 (SWAC) "to assist in the development of programs and policies concerning solid
47 waste handling and disposal..." The SWAC members must be representatives from
48 "public interest groups, citizens, business, waste management industry, and local



1 elected officials." (RCW 70.95) The Pierce County SWAC meets on a regular basis
2 to review solid waste management programs.

3 Counties must implement a number of programs which include: waste reduction,
4 residential recycling collection for urban and rural areas and for single family and
5 multi-family residents, yard waste collection, public information, educational
6 programs on waste reduction and recycling, programs to monitor collection of
7 recyclables from businesses and industries, procurement plans, "in house" recycling
8 collection programs, and handling of special wastes.

9 Counties must also maintain an inventory of all existing solid waste handling
10 facilities, identify potential disposal and recycling facility needs, and assess disposal
11 capacity needs based on 20 years of population growth for all participating
12 jurisdictions.

13 State regulations for facility design and operation contain locational criteria for
14 each type of solid waste facility. The criteria range from specifics of physical
15 location, such as "landfills cannot be located over geologic hazard areas," to criteria
16 for specific land uses, such as "landfills cannot be located within 10,000 feet of an
17 airport" (WAC 173-351).

18 e. **Hazardous Waste.** Hazardous waste collection and disposal is regulated by
19 Washington's Dangerous Waste Regulations (WAC 173-303), the administrative
20 code which implements RCW 70.105D Hazardous Waste Clean-up Model Toxics
21 Control Acts. For the most part, federal and State regulations take a "cradle to
22 grave" approach to regulating hazardous waste through the use of permitting systems
23 for individual industrial or commercial businesses using, producing and transporting
24 these wastes. The State has reserved the right to determine the location and siting of
25 all hazardous waste disposal facilities and has a permitting process including public
26 hearings in the affected community.

27 Household hazardous waste is categorically exempt from these regulations as are
28 businesses producing such waste under certain threshold amounts. For the purposes
29 of handling and management, these exempt wastes are defined as "solid waste" but
30 they must be disposed or recycled as "hazardous waste." Counties, in coordination
31 with cities and towns, are required to adopt local hazardous waste management plans
32 for this moderate risk waste. These plans must inventory businesses producing
33 waste, determine amounts generated, devise information and educational programs
34 to assist businesses to properly handle the waste, ensure proper disposal, and develop
35 collection programs for household hazardous waste. Pierce County and the cities
36 and towns adopted the Pierce County Local Hazardous Waste Management Plan,
37 which is administered by the TPCHD. The County, City of Tacoma, and TPCHD
38 work together to provide the household hazardous waste collection programs.

39 **3. Pierce County.**

40 a. **Comprehensive Plan and Management Systems.** For the County and its cities
41 and towns, the management of solid waste is governed by the *Tacoma Pierce*
42 *County Solid Waste Management Plan*. All of the cities and towns adopted the Plan
43 and signed interlocal agreements committing to the management systems described
44 in the Plan.

45 The update to the Plan was adopted by the County Council in December 2000.
46 After adoption by all the cities and towns in early 2001, it was approved by the
47 Washington Department of Ecology in August 2001. As required, it is an integrated
48 system plan addressing all issues relating to the collection, processing and disposal



1 of solid waste, including waste reduction and recycling. It contains numerous goals,
2 policies and recommendations for alternative programs or studies to implement the
3 Plan. The goals address: waste reduction and recycling, refuse collection, solid
4 waste processing technologies (such as composting), transfer system capacity,
5 landfilling, illegal dumping, enforcement and administration, and best management
6 practices for special wastes. The County and its cities and towns achieved a 50
7 percent recycling rate in 1995. New goals focus on updating collection programs
8 and the diversion of additional materials to increase the recycling rate and to reduce
9 the amount of waste that is disposed per capita.

10 There are three separate collection and disposal systems. The Pierce County
11 Management System serves the unincorporated areas and those cities and towns
12 which sign Interlocal Agreements with the County. Cities and towns may change
13 the agreements during each plan review. In addition to the County's system, the City
14 of Tacoma operates its own collection utility, disposal facilities, and management
15 system and provides disposal for the Town of Ruston which operates its own
16 collection utility. Fort Lewis and McChord Air Force Base jointly use the Fort
17 Lewis disposal system with separate but coordinated collection systems for solid
18 waste and recycling. Fort Lewis has its own comprehensive solid waste
19 management plan.

20 The Solid Waste Division of the Pierce County Department of Public Works and
21 Utilities is the agency in County government charged with planning for disposal for
22 the unincorporated areas and those cities and towns using the County's system and
23 with designing and implementing waste reduction and recycling programs for
24 unincorporated areas.

25 **b. Locational Requirements.** The Tacoma Pierce County Solid Waste
26 Management Plan summarizes the State's regulations for siting a mixed municipal
27 solid waste landfill, WAC 173-351, and identifies areas of the County that might
28 meet these requirements. It also summarizes the locational, operational and
29 permitting requirements for other solid waste facilities.

30 —The Pierce County Zoning Code contains regulations which are coordinated with
31 the State's requirements and the goals and policies of the Solid Waste Management
32 Plan. In general, the Zoning Code designates which solid waste facilities are
33 appropriate for which zones. For instance, the Zoning Code provides for siting most
34 solid waste facilities away from residential uses. Recycling businesses are allowed
35 in the commercial or industrial zone with the type of permit required depending
36 upon the size and the intensity of uses allowed in the zones. Drop-off recycling sites
37 are allowed in all zones to provide good access. The Zoning Code also has design
38 requirements for landscaping and buffering to prevent inappropriate access and to
39 provide for screening, noise attenuation and control of litter and dust. Public
40 hearings are required for large scale facilities such as landfills and transfer facilities.

41 **C. Solid Waste Existing Conditions.** The collection of solid waste in unincorporated
42 Pierce County is provided by Harold LeMay Enterprises (operating as Pierce County
43 Refuse and Lakewood Refuse), Waste Connections, Inc. (operating as Murrey's
44 Disposal and American Disposal), and University Place Refuse (Westside Disposal).

45 **1. Collection and Disposal Systems and Service Areas.** Collection of solid waste in
46 the unincorporated areas of Pierce County is provided by certificated collection
47 companies who have designated franchise districts from the WUTC. Two
48 companies serve small geographic areas with large, urban populations—Lakewood



1 and University Place/Fircrest. The other franchises cover the remainder of the
2 County. Except for Tacoma and Ruston, the cities and towns either contract with
3 one of these collection companies or have chosen to be included within the WUTC-
4 regulated franchises.

5 In unincorporated areas collection of garbage is not mandatory, although the hauling
6 companies offer the service to anyone who wants it. The Plan allows for the
7 development of mandatory programs, if necessary. Recycling and yard waste
8 collection services are also voluntary. The two recycling services are made available
9 to anyone living on a driveable road in the County, including rural areas. Between
10 20-23 percent of County residents dispose of their waste through composting,
11 recycling, farming practices, or by self-hauling to a transfer station.

12 Some cities or towns make garbage collection mandatory within their city limits.
13 Most make recycling collection optional in their contracts with hauling companies.
14 Pierce County contracts for disposal services with a private vendor, Pierce County
15 Recycling, Composting and Disposal dba LRI. The County also contracts with LRI
16 to run and operate the County-owned transfer station, three drop box transfer
17 facilities, and the yard waste composting facility. The contract agreement approved
18 by the County Council sets out basic rates for waste disposal, transfer, recycling
19 services at the transfer facilities, litter cleanup programs, and administration
20 programs. It establishes a procedure to adjust those rates for inflation or compliance
21 with new environmental laws or standards.

22 Private businesses provide an important, and growing, part of the recycling
23 collection system. Besides the haulers' curbside collection programs, residents and
24 businesses can drop-off recyclables at the 40 or more recycling buy-back centers and
25 businesses which collect, process, and market recyclables and at all the transfer
26 stations. Many of the private businesses specialize in such items as yard waste,
27 construction debris, scrap metal, or gypsum.

28 **2. Location, Capacity, and Reliability of Facilities.**

29 a. **County Disposal System – Landfill.** The LRI Landfill, located at the
30 intersection of 304th Street and Meridian in south Pierce County, opened on
31 December 13, 1999. It is a 328-acre site with sufficient capacity to provide for
32 disposal of waste generated in Pierce County for more than 20 years. The site
33 includes substantial landscape buffering and is designed to provide for wetland
34 mitigation according to its approved land use and solid waste permit requirements.

35 b. **Transfer Stations and Drop Box Facilities.** The County owns, and leases for
36 operation, one full-scale transfer station and three drop box facilities. The facilities
37 are strategically located around the County to provide County residents opportunities
38 to self-haul garbage and recyclables and to provide haulers' route collection vehicles
39 with the ability to transfer waste to larger containers. Drop box facilities are located
40 on Anderson Island, at Key Center on the Key Peninsula, and at the corner of Prairie
41 Ridge and South Prairie Road, just south of Bonney Lake. Containers are provided
42 for the collection of recyclables and for yard waste. Together, the three drop box
43 facilities can handle 62 tons per year. However, these facilities can expand capacity
44 by adding containers, expanding hours and days open, and transferring waste more
45 frequently to the landfill.

46 The Purdy Transfer Station is located on the Gig Harbor Peninsula at the site of a
47 County-owned, closed landfill. Residents and garbage collection trucks in the
48 Peninsula area drop-off waste, recyclables, and yard waste for transport to the



1 landfill or for recycling. Opportunities are also provided for the disposal of
2 appliances for recycling. The transfer station handles an average of 107 tons per
3 day. It can handle additional tonnage to meet population growth through expansion
4 techniques.

5 Two hauling companies operate full-scale transfer stations for their collection
6 trucks and one company operates a drop box facility at its headquarters in University
7 Place. The two larger facilities are in the Lakewood Industrial Park and in the
8 Puyallup Valley, west of Puyallup. They handle approximately 500 tons per day and
9 their capacity can also be increased. These facilities are not open to the public for
10 the disposal of waste although residents can drop-off recyclables.

11 The third private transfer station, owned by LRI and located at the site of the
12 closed Hidden Valley Landfill, is open to the public. Opportunities are provided for
13 the drop-off of recyclables at a small-scale recycling facility and yard waste at LRI's
14 Compost Factory, both of which are located at the site. There are additional
15 opportunities to divert other items from the disposed waste stream such as large
16 appliances and construction and demolition debris. The Hidden Valley Transfer
17 Station can handle approximately 800 tons per day and is designed to be doubled in
18 size, when additional capacity is necessary.

19 The City of Tacoma has a recycling center and a household hazardous waste
20 facility at its transfer station/landfill site. County residents can drop-off recyclables
21 and household hazardous waste for free but must pay an extra fee to drop-off waste.

22 e. **Yard Waste Composting Facility.** In 1992, the County built, and leased for
23 operation, a yard waste composting facility located adjacent to the Purdy Transfer
24 Station on the Gig Harbor Peninsula. The facility composts yard waste collected
25 through the haulers' yard waste collection services and other yard debris self-hauled
26 to the transfer facilities. The composting facility was sized to handle 30,000 tons per
27 year, but has been operating beyond its design capacity since it was built. In 1999,
28 LRI built a 3.5-acre compost factory and an in-vessel compost facility at the Hidden
29 Valley site which can compost many types of organics and provide substantial
30 capacity to handle all of the yard waste collected from residences and businesses in
31 the County.

32 d. **Private Facilities.** In addition to the private recycling collection and processing
33 businesses, there are private inert and demolition landfills, composting facilities, and
34 businesses which specialize in handling demolition, land clearing debris, and
35 petroleum-contaminated soils in Pierce County. The tonnage varies from year to
36 year, depending upon market conditions, contracts with various jurisdictions, and
37 seasonal needs.

38 e. **Tacoma Disposal System.** Tacoma has a 190-acre landfill within the city limits
39 which processes an average of 575 tons per day. Most of the landfill site has been
40 filled. Mixed waste is processed on the site at a Refuse Derived Fuel (RDF) facility
41 which shreds, magnetically separates, and air classifies material to yield ferrous
42 metals, RDF, and a heavy residue. The Tacoma Energy Recovery Facility has been
43 designed to burn a mix of RDF from the landfill, coal, and woodwaste to produce
44 electricity.

45 f. **Fort Lewis and McChord AFB Disposal System.** Solid wastes generated on the
46 two military reservations are taken to the Fort Lewis Recycling Center and Transfer
47 Station and then disposed out of county. McChord has separate demolition and inert
48 landfills. Waste is no longer disposed in the Fort Lewis Landfill. Five of the six cells



1 of the landfill have been closed. Cell 6 is 99 percent full and being kept open as a
2 backup transfer point. McChord AFB has drop off recycling center and provides
3 curbside residential recycling collection.

4 **D. Solid Waste Analysis of Capacity Needs and Proposed Conditions.**

5 **1. Population and Waste Generation.** The County and the cities and towns are
6 required by law to ensure that there is sufficient disposal capacity for 20 years for
7 whatever population exists and they are also required to provide for back up disposal
8 capacity.

9 The formula for determining capacity can be modified by estimating how much
10 generated waste will be recycled. Pierce County's recycling rate has remained at
11 approximately 50 percent since 1995. The County uses a constant per capita waste
12 disposal rate of 4.5 pounds per day to project disposal needs based on a 50 percent
13 recycling rate. Despite successful recycling efforts, it is likely that the disposal rate
14 will remain the same and not decrease. It is not prudent to rely heavily on
15 maintaining a 50 percent rate over 20 years and upon achieving a decrease in the per
16 person disposed rate. Many factors can affect needed capacity. The Pierce County
17 Department of Public Works and Utilities—Solid Waste Division monitors recycling
18 rates, disposed tonnage, and population growth to revise projections. An unexpected
19 surge in population in one year can result in substantial increases in disposed
20 tonnage in 20 years. Increased development in the commercial and industrial sector
21 tends to also increase tonnage as does a strong economy. While the County can
22 implement waste reduction and recycling programs, the actual recycling rate
23 depends upon the ability to market the collected materials and the willingness of
24 residents to pay for collection. Recycling markets fluctuate and are affected by
25 worldwide events and economic conditions over which the County has no control.
26 In terms of organic waste, seasonal fluctuations also enter into consideration. The
27 County designed its yard waste composting facility to remove 30,000 tons per year
28 of yard waste from the waste stream. The amount of tonnage removed each year,
29 however, depends upon both the success of collection programs and whether it is a
30 dry or wet year (which affects the growing season), as well as natural events which
31 cause storm damage. By 1998 with all of the yard waste collection systems in place
32 and the County's facility processing 120 tons per day, yard waste dropped from 18 to
33 25 percent of the total municipal waste stream disposed to 4.4 percent. The County
34 regularly conducts waste audits to determine how much compostable waste and
35 recyclables are in the waste stream, how much is being removed by what types of
36 facilities, and the potential for removing more tonnage. The County uses this
37 information to identify the types of public or private facilities that might be needed
38 to divert additional amounts of organic waste and recyclable material from the
39 disposed waste stream. The County also uses its Data Collection system to monitor
40 the types of materials and the amounts which are being recycled and composted by
41 private businesses.

42 Besides disposal capacity and recycling/composting capacity, there is one other level
43 of service for handling/disposal capacity required of the County and cities and towns
44—the capacity to collect and dispose of household hazardous waste. The Hazardous
45 Waste Management Plan estimates that household hazardous waste comprises 0.4
46 percent to 0.5 percent of the Pierce County waste stream and, in line with federal and
47 state regulations, recommends diversion of this waste from the municipal waste
48 stream to hazardous waste facilities.



1 Since 1987, Pierce County has sponsored household hazardous waste collection
2 events in coordination with Tacoma, the Health Department, and other communities.
3 Under the EPA Consent Decree, Tacoma was required to establish a household
4 hazardous waste collection facility at its Landfill. Pierce County contracts with
5 Tacoma to allow all residents from the unincorporated areas and the other cities and
6 towns to drop off household hazardous waste at this facility. The County also
7 contracts with Tacoma to provide approximately four satellite collection events in
8 rural areas per year, and works with TPCHD on public education programs about
9 how to use and properly dispose of household hazardous waste.

10 ~~2. **Utility Service Areas.** Urban and rural residents of the County will continue to need
11 collection services whether provided under the unincorporated area franchise system,
12 through city hauling contracts, or through self haul opportunities. The only changes
13 that would affect County facility capacity and needs would be if a city or town
14 developed its own plan and substantial amounts of waste left the County's system.
15 By law, any city or town which withdraws from the county wide solid waste plan
16 would need to provide for its own disposal system.~~

17 ~~3. **Capacity and Facility Needs.**~~

18 ~~a. **Disposal Facilities.** Pierce County has determined a need for disposal capacity
19 for between 10 and 11 million tons over the next 20 years. Together, the County,
20 Tacoma, Fort Lewis and McChord AFB will need disposal capacity for municipal
21 waste of between 15 and 16 million tons by the year 2020. Capacity needs are
22 figured conservatively. The LRI Landfill has sufficient capacity to dispose of waste
23 generated in Pierce County for more than 20 years.~~

24 ~~The goals and policies of the 2000 Tacoma Pierce County Solid Waste
25 Management Plan continue the focus adopted by the County Council in 1991 to
26 develop "to the maximum extent" source separation waste reduction and recycling
27 programs and to rely upon landfilling for the long term disposal option. The Plan
28 allows the County to contract for use of an out-of-county landfill "if there is a lack of
29 landfill capacity in Pierce County" or if the County determines that out-of-county
30 disposal options are cost effective.~~

31 ~~b. **Transfer Facilities.** Sufficient public and private capacity appears to exist to
32 handle projected tonnage for 20 years. However, the County has identified the need
33 to study additional options to site a new solid waste transfer station and to continue
34 to upgrade existing facilities.~~

35 ~~Major determinants for siting transfer stations are: the need to locate near
36 concentrations of population so that route collection vehicles can economically
37 transfer loads to larger transfer vehicles, the need to strategically site the facilities for
38 the driving convenience for those in rural areas who self-haul, and the need for
39 access to major transportation facilities.~~

40 ~~Existing drop boxes and the transfer station at Purdy have expansion capability to
41 handle any additional population growth in their geographical areas. This can be
42 done through expanding hours open to the public, adding more transfer trailers, more
43 frequent transfer of waste, and by providing additional recycling opportunities.~~

44 ~~c. **Yard Waste Composting Facilities.** Pierce County has more than sufficient
45 public and private facility capacity to compost yard waste, food waste, and other
46 organics and there is sufficient private processing capacity to handle land-clearing
47 debris that cannot be composted. In addition to the County's yard waste composting
48 facility at Purdy, there is LRI's Compost Factory at the Hidden Valley Transfer~~



1 Station which can handle many types of organic waste. Private capacity to compost
2 other specific wastes is also growing; Wilcox Farms built a facility to compost its
3 chicken manure.

4 ~~d. **Household Hazardous Waste Transfer Facility.** The County identified a need
5 to provide additional opportunities to the public for drop-off household hazardous
6 waste. The County is contracting with LRI to site a hazardous waste collection
7 facility at the Hidden Valley transfer station to improve access for residents of
8 eastern and southern Pierce County.~~

9 ~~e. **Illegal dumping of waste and nuisance vehicles.** At the direction of the Pierce
10 County Executive, the Solid Waste Division became responsible for the new Pierce
11 County Responds program aimed at reducing illegal dumping problems. The
12 program acts as a central clearinghouse for receiving and investigating citizen
13 complaints about illegal dumping, abandoned or inoperable vehicles, and illegal
14 wrecking or disposal operations. The program coordinates enforcement between
15 four County departments and the Tacoma-Pierce County Health Department. It
16 recommends and pursues cases for prosecution; effects site cleanups; educates
17 citizens on safe and proper recycling and disposal methods; and provides financial
18 assistance for community volunteer cleanups.~~

19
20 **19.80.080 Solid Waste Management.**

21 **A. Tacoma-Pierce County Solid Waste Management Plan.**

22 The Tacoma-Pierce County Solid Waste Management Plan (Pierce County Code
23 Chapter 8.28 and Pierce County Code Chapter 19D.90), as amended, provides for, and
24 supports, efforts to increase recycling and diversion of waste to preserve and assure
25 disposal capacity, reduce emissions, and prevent pollution.

26 **B. Regulatory Environment.**

- 27 1. Overview. In Washington, local governments manage and handle waste according
28 to state laws some of which are authorities delegated from the federal Resource
29 Conservation and Recovery Act. Important authorities are detailed in Chapter 70.95
30 RCW (Solid Waste Management--Reduction and Recycling Act), Chapter 173-350
31 WAC (Solid Waste Handling Standards), and Chapter 173-351 WAC (Criteria for
32 Municipal Solid Waste Landfills).
- 33 2. Planning. Chapter 70.95 RCW requires counties, in coordination with their cities
34 and towns, to adopt comprehensive solid waste plans for the management, handling,
35 and disposal of solid waste, and to keep those plans in a "current" status through
36 periodic review and update. The Tacoma-Pierce County Solid Waste Management
37 Plan, as amended, complies with this requirement.
- 38 3. Permitting. The Tacoma-Pierce County Health Department (TPCHD) administers
39 solid waste handling permit processes established pursuant to Chapter 70.95 RCW.
- 40 4. Collection. The Washington Utilities and Transportation Commission grants
41 certificates (franchises) authorizing solid waste collection and residential recycling
42 in unincorporated areas and for cities that choose not to provide service through
43 contract or operation of a municipal utility. Commercial recycling is subject to
44 regulation under more generic transportation and registration laws.

45 **C. Location, Capacity, and Capacity Needs.**

- 46 1. Population and Waste Generation. The Tacoma-Pierce County Solid Waste
47 Management Plan has established an aggressive waste reduction and recycling



1 strategy to dramatically decrease *per capita* waste disposal needs from 4.5 pounds
2 per day (2007) to 1.09 pounds per day (2032).

3 2. County Disposal System – Landfill. The LRI Landfill, a designated Essential Public
4 Facility, located at the intersection of 304th Street and Meridian in south Pierce
5 County, opened on December 13, 1999. At full build-out to the extent currently
6 permitted, the 328-acre site will have sufficient capacity to provide for disposal of
7 waste generated in Pierce County for more than 20 years. Aggressive waste
8 reduction and recycling programs, coupled with authorization for the County and its
9 contractor to divert wastes to disposal at an out-of-county landfill will preserve and
10 assure local capacity.

11 3. Transfer Stations and Drop Box Facilities. The County owns one transfer station
12 and three residential waste drop box facilities which are operated by a private
13 contractor. The private sector owns and operates three additional transfer stations.
14 All have untapped capacity that can be utilized by adding containers, expanding
15 hours and days of operation, and transferring waste more frequently to the landfill or
16 railhead. Aggressive waste reduction and recycling programs can also be tapped to
17 “add” capacity.

18 4. Yard Waste Composting Facilities. Pierce County and its solid waste contractor
19 each own one yard waste composting facility. With annual demand for more
20 composting services exceeding 75,000 tons per year, both facilities have reached
21 capacity. As a result, the County’s contractor purchased an existing compost facility
22 in Thurston County to help meet demand. If the County relies solely on traditional
23 composting for the handling of foodwaste and other similar wastes, new programs
24 could be implemented only after development of new facilities or permanent
25 decisions to ship to facilities outside Pierce County. Other processing technologies
26 (designated as “Conversion Technologies” in the Solid Waste Plan) may be able to
27 increase the efficiency (and throughput) of composting processes or, as stand-alone
28 facilities, may be able to convert organic waste to electricity or to alternative fuels,
29 such as bio-diesel, ethanol, or compressed or liquefied natural gas.

30 5. Tacoma Disposal System. Tacoma has a transfer station, a recycling center, the
31 EnviroHouse education center, and a household hazardous waste facility located on a
32 190-acre landfill site within the city limits on the 3700 block of South Mullen Street.
33 The landfill has approximately one-year of capacity left but that capacity is reserved
34 for back-up emergency needs. Tacoma contracts with LRI for disposal at the LRI
35 Landfill.

36 6. Fort Lewis and McChord AFB. Solid wastes generated on the two military
37 reservations are taken to the Fort` Lewis Recycling Center and Transfer Station and
38 then disposed, as of 2009 through a contract with the LRI Landfill. There are no
39 capacity concerns.

