

**Tucker County
Commercial Solid Waste
Facility Siting Plan**

JUNE 7, 2016

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FORWARD

This plan is intended to discuss the feasibility of siting of commercial solid waste facilities within the county. The original Tucker County Comprehensive Litter and Solid Waste Control Plan stated that no significant increase in the quantity of solid waste generated in the county was projected over the 20 year planning period.

Although the county's population is expected to remain relatively stable, there has been modest growth in tourism and vacation homes within the county since the original plan was approved in 1990. Taking this growth into account, the Tucker County Solid Waste Authority acknowledges that an increase in the quantity of solid waste generated within the county through 2035 is a possibility. However, in 2015 only 12% of tonnage accepted at the Tucker County Landfill was generated in Tucker County. The remaining 87% of tonnage originated in other West Virginia counties, with a small amount originating in Maryland.

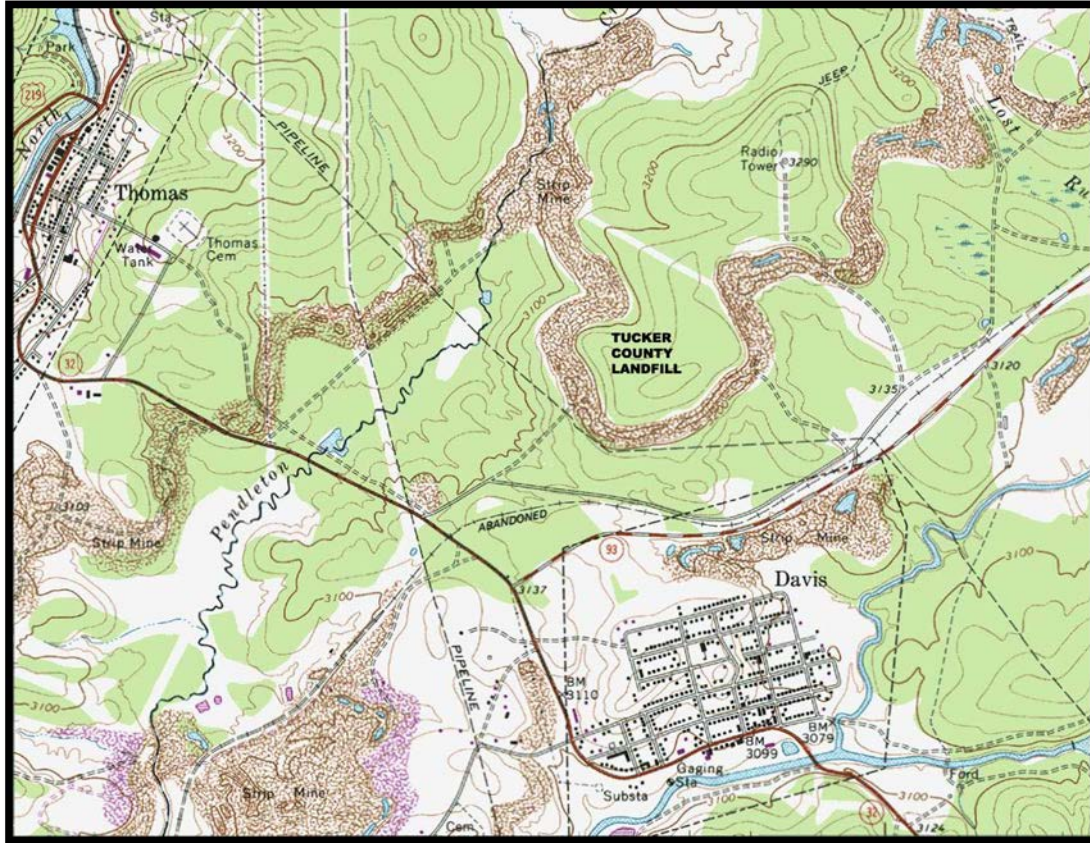
The landfill generally serves Barbour County, Grant County, Hampshire County, Hardy County, Mineral County, Pendleton County, Pocahontas County, Preston County, Randolph County, Tucker County, Upshur County, and Allegany and Garrett County, MD.

Collection services are currently available to all residents of the county and virtually all of the county's solid waste is disposed of at the landfill operated by this Authority.

Landfill tonnage for the 2015 calendar year was 66,559 tons, an average of 5,547 tons per month.

The Tucker County Landfill began operation in 1989 on a site located between the Towns of Davis and Thomas in Tucker County, West Virginia. The Tucker County Solid Waste Authority (TCSWA) owns and operates the landfill. The existing landfill is being operated under Permit No. SWF-8295/WV0109126, which covers the operation of seven landfill cells, six of which are currently inactive. The currently permitted area is 45.4 acres

The location of the Tucker County Landfill is shown below.



This plan establishes the Authority's purposes and objectives for siting commercial solid waste facilities within Tucker County for the next twenty years, with updates occurring every five years as required by 54CSR4-3.1. This siting plan establishes zones in the county where each of eight types of commercial solid waste facilities are either authorized, tentatively prohibited or prohibited. The facilities covered in this plan are Class A, B, C and D landfills, solid waste transfer stations, recycling facilities, energy recovery facilities and incinerators, materials recovery facilities and composting facilities.

This plan update is meant to act only as a guide developed from readily available information. Should the siting of any of the aforementioned facilities be considered, a more in-depth investigation of the site will be necessary to determine whether any proposed facility is truly suitable for a certain location. The responsibility, monetary and otherwise, of determining if a site is suitable for the siting of a commercial solid waste facility lies solely with individuals and/or groups wishing to site the facility.

SUMMARY

Siting recommendations suggested in this plan are general, not specific; based on readily available information and brief tours of the county taken by Authority board members during the development of the original plan. Unless current readily available information clearly indicated an area to be suitable or unsuitable for the location of a solid waste facility the area was marked tentatively prohibited.

The rationale for zoning is listed below and is based on the Title 54 Legislative Rules Solid Waste Management Board, Series 4: Commercial Solid Waste Facility Siting Plans and includes:

- The efficient disposal of solid waste, including, but not limited to, all solid waste generated within the county or region, regardless of its origin - the plan describes how the zones established will ensure the efficient collection, transfer, and disposal of solid waste.
- Economic development – the plan describes how the zones established will have a positive or negative impact on the county or regional economy. It will detail the specific impact on the economy and give a rationale for said impact.
- Transportation infrastructure – the plan will describe how the transportation network will allow or prohibit the efficient transportation of solid waste into or through the established zones. It will address all transportation routes, i.e., roads, river, and rail.
- Property values – the plan will describe how the zones established will have a positive or negative impact on property values.
- Groundwater and surface waters – the plan will describe how the established zones will protect groundwater and surface waters in the area. Groundwater and surface water are currently monitored in accordance with WV DEP permit requirements for the one existing permitted facility.
- Geological and hydrological conditions – The plan will describe how solid waste facilities are not permitted within 300 feet of any surface water or wetlands and within 1200 feet of any public or private water supply. Solid Waste facilities are also not permitted within 200 feet of any known fault or other extreme hydrological or geological conditions. Extensive underground and surface mining has taken place throughout the county and narrow valleys and steep slopes provide a significant detriment to facility siting in much of the county.
- Aesthetic and environmental quality – The plan describes how solid waste facilities are prohibited within six miles of an airport, within 1,000 feet of the nearest edge of the right-of-way of any state trunk highway, interstate, or federal aid primary highway, or the boundary of any public park. Tucker County has large

areas of national forest and state parks.

- Historic and cultural resources – Much of the county's economy is based upon its ability to attract tourism. The efficient disposal of waste is a must in order to accomplish this and has been considered in the plan.
- Present and potential land uses – Both present and potential land uses have been consider in this plan.
- Public heath and welfare and convenience – The rugged mountainous terrain, lack of major highways, the presence of only two four-lane freeway systems (one of which is yet to be completed) throughout 6,486 square miles in the ten-county area currently served by the one sited facility in Tucker County, and the disappearance and removal of rail lines and rail services make the collection, processing, transfer, delivery, landfilling, and recycling of solid waste and refuse difficult, expensive, and time-consuming in this area. The plan addresses these public health welfare, and convenience issues.

West Virginia 54CSR4 stipulates that each authority establish a zone in which landfills are prohibited, unless the readily available information clearly establishes that landfills may be located within the zone and not cause a significant adverse impact upon ground or surface water quality.

Class A Landfills

“Class A facility” means a commercial solid waste facility which handles an aggregate of between ten and thirty thousand (10,000-30,000) tons of solid waste per month.

“Class A facility” includes two or more Class B solid waste landfills owned or operated by the same person in the same county, if the aggregate tons of solid waste handled per month by such landfills exceed nine thousand nine hundred ninety-nine (9,999) tons of solid waste per month.

Authorized: None.

Prohibited: These areas are prohibited because of one or more of the criteria established in Title 54 Legislative Rules, Series 4, including the following areas:

- Within three hundred (300) feet of any surface water (facility drainage or sedimentation control structures are exempt from this distance calculation);
- Within three hundred (300) feet of any wetlands (facility drainage or sedimentation control structures are exempt from this distance calculation);
- Within a perennial stream;
- Within a 100-year floodplain;
- Within twelve hundred (1,200) feet of any public or private water supply well in existence at the time the zone is established;
- Within 200 feet of any known fault or other extreme hydrological or geological conditions;
- Municipal solid waste landfills are prohibited within 6 miles of an airport, 49USC §44718(d);
- Within 1,000 feet of the nearest edge of the right-of-way of any state trunk highway, interstate, or federal aid primary highway, or the boundary of any public park; and
- Within 500 feet of an occupied dwelling.

Tentatively prohibited: All other areas of the county where not specifically prohibited in 54CSR4.

The Authority has not included siting plans for a Class A landfill because it is believed that the criteria set forth in Senate Bill 18 would prohibit a Class A Landfill in Tucker County. Such a facility is not considered to be either feasible or desirable. Tucker County, plus its surrounding counties, generates far less than this quantity of solid waste and the transportation system without river, rail or divided highway is not conducive to long distance transport of solid waste.

Class B and C Landfills

“Class B facility” means a commercial solid waste facility which receives, or is expected to receive, an average daily quantity of mixed solid waste equal to or exceeding one hundred (100) tons each working day; or serves, or is expected to serve, a population equal to or exceeding forty thousand (40,000) persons, but which does not receive solid waste exceeding an aggregate of ten thousand (10,000) tons per month. “Class B facility” does not include construction/ demolition facilities: Provided, that the definition of Class B facility may include such reasonable subdivisions or sub classifications as the director may establish by legislative rule proposed in accordance with the provisions of W. Va. Code § 29A-1-1 et seq.

“Class C facility” means a commercial solid waste facility which receives, or is expected to receive, an average daily quantity of mixed solid waste of less than one hundred (100) tons each working day; and serves, or is expected to serve, a population of less than forty thousand (40,000) persons. “Class C facility” does not include construction/demolition facilities.

Authorized: The current site of the Tucker County Landfill: Tucker County Landfill is a “Class B facility” and authorized to accept up to 9,999 tons per month.

Prohibited : These areas are prohibited because of one or more of the criteria established in Title 54 Legislative Rules, Series 4, including the following areas:

- Within three hundred (300) feet of any surface water (facility drainage or sedimentation control structures are exempt from this distance calculation);
- Within three hundred (300) feet of any wetlands (facility drainage or sedimentation control structures are exempt from this distance calculation);
- Within a perennial stream;
- Within a 100-year floodplain;
- Within twelve hundred (1,200) feet of any public or private water supply well in existence at the time the zone is established;
- Within 200 feet of any known fault or other extreme hydrological or geological conditions;
- Municipal solid waste landfills are prohibited within 6 miles of an airport, 49USC §44718(d);
- Within 1,000 feet of the nearest edge of the right-of-way of any state trunk highway, interstate, or federal aid primary highway, or the boundary of any public park; and
- Within 500 feet of an occupied dwelling.

Tentatively prohibited: All other areas of the county where not specifically prohibited in 54CSR4.

This Authority believes that siting requirements for these facilities are similar enough aside from tonnage requirements that they can be considered together. Siting problems in this county include large areas of public lands, municipalities or residential communities, narrow valleys with perennial streams, and steep slopes.

Class D Landfills

“Class D facility ” means any commercial solid waste facility for the disposal of only construction/demolition waste, and does not include the legitimate beneficial reuse of clean waste concrete/masonry substances for the purpose of structural fill or road base material.

Authorized: None.

Prohibited: These areas are prohibited because of one or more of the criteria established in Title 54 Legislative Rules, Series 4, including the following areas:

- Within three hundred (300) feet of any surface water (facility drainage or sedimentation control structures are exempt from this distance calculation);
- Within three hundred (300) feet of any wetlands (facility drainage or sedimentation control structures are exempt from this distance calculation);
- Within a perennial stream;
- Within a 100-year floodplain;
- Within twelve hundred (1,200) feet of any public or private water supply well in existence at the time the zone is established;
- Within 200 feet of any known fault or other extreme hydrological or geological conditions;
- Within 1,000 feet of the nearest edge of the right-of-way of any state trunk highway, interstate, or federal aid primary highway, or the boundary of any public park; and
- Within 500 feet of an occupied dwelling.

Tentatively prohibited: All other areas of the county where not specifically prohibited in 54CSR4.

Tucker County does not currently have a Class D facility. The zones for the placement of these facilities, should they be sited, would be larger than that of Class A, B or C, because they are not considered as hazardous as facilities that accept mixed solid waste.

The Authority feels that providing more zones for Class D facilities in case of a natural disaster, e.g. flood that would call for disposal of large amounts of debris on short notice would help maintain useable airspace for solid waste disposed of on a daily basis at the major landfill in the area. Authorized areas should be easily accessible and available, and resident's aesthetics should not be effected. Stream or natural drainage channels must

not be blocked so as to contribute to flood hazard. Recreational areas and National Forest lands are not considered. Un-reclaimed strip mine sites and abandoned quarries such as that adjacent to County Road 8, south of Rt. 38 in the western, portion of the county would be good candidates for this type of fill.

Incinerators

“Energy Recovery Incinerator” - means any solid waste facility at which solid wastes are incinerated with the intention of using the resulting energy for the generation of steam, electricity, or any other use not specified herein.

“Incinerator” - means an enclosed device using controlled flame combustion to thermally break down solid waste, including refuse-derived fuel, to an ash residue that contains little or no combustible materials.

Authorized: None.

Prohibited: For these types of facilities, all areas are prohibited. The zoning limits are interpreted to be the county line. These areas are prohibited because of W.Va. Code §22-15-19.

Tentatively Prohibited: None.

Recycling and Materials Recovery Facilities

“Recycling Facility” - means any solid waste facility for the purpose of recycling at which neither land disposal nor biological, chemical or thermal transformation of solid waste occurs; Provided, that mixed waste recovery facilities, sludge processing facilities and composting facilities are not considered to be reusing or recycling solid waste within the meaning of W. Va. Code §§ 20-11-1 et seq., 22-15-1 et seq and 22C-4-1 et seq.

Such facilities might range from simple bins in public areas for local collection of recyclables to larger facilities for concentration of recyclables on a regional or county basis. The larger facility might include further separation, e.g. on basis of color for glass, equipment for crushing, and space for storing large quantities prior to transport. As long as recyclables are properly prepared prior to deposit at such facilities there would be little problem with odor or other offensive or hazardous characteristics of mixed refuse.

Authorized: Placement of recycling bins or larger collection/sorting facilities is authorized throughout the county except as noted below. Authorized areas should be easily accessible and available, and resident’s aesthetics should not effected.

Prohibited: In wetlands, 100 year floodplain, state and federal parks.

Recycling bins may be placed in the state parks for use by visitors and employees.

Tentatively Prohibited: None.

“Materials Recovery Facility” - means any solid waste facility at which source-separated materials or materials recovered through a mixed waste processing facility are manually or mechanically shredded or separated for purposes of reuse and recycling, but does not include a composting facility.

In light of the rural nature of this region and the relatively low volume of solid waste generated, such a facility is not considered feasible. Source separation by households and businesses is much more feasible and is to be encouraged. In the event such a facility was to be considered, the hazards and aesthetics of dealing with mixed refuse would entail the same siting considerations as typical landfills.

Authorized: None.

Prohibited: These areas are prohibited because of one or more of the criteria established in Title 54 Legislative Rules, Series 4, including the following areas:

- Within three hundred (300) feet of any surface water (facility drainage or sedimentation control structures are exempt from this distance calculation);
- Within three hundred (300) feet of any wetlands (facility drainage or sedimentation control structures are exempt from this distance calculation);
- Within a perennial stream;
- Within a 100-year floodplain;
- Within twelve hundred (1,200) feet of any public or private water supply well in existence at the time the zone is established;
- Within 200 feet of any known fault or other extreme hydrological or geological conditions;
- Municipal solid waste landfills are prohibited within 6 miles of an airport, 49USC §44718(d);
- Within 1,000 feet of the nearest edge of the right-of-way of any state trunk highway, interstate, or federal aid primary highway, or the boundary of any public park; and
- Within 500 feet of an occupied dwelling.

Tentatively prohibited: All other areas of the county where not specifically prohibited in 54CSR4.

Transfer Stations and Composting Facilities

“Transfer Station” - means a combination of structures, machinery, or devices at a place, or facility where solid waste is taken from collection vehicles and placed in other transportation units (such as a “walking floor,” or other method of transfer as determined by the director) for movement to another solid waste management facility. Provided, when the initial generator of solid waste disposes of said waste into a container such as a roll-off, green box or bin which is temporarily positioned (not more than five days) at a specific location for transport by a transportation unit, such container shall not be considered a transfer station. Under any circumstances, leachate, litter and windblown materials must be properly managed.

Authorized: At former and present landfill sites.

Prohibited: These areas are prohibited because of one or more of the criteria established in Title 54 Legislative Rules, Series 4, including the following areas

- Within three hundred (300) feet of any surface water (facility drainage or sedimentation control structures are exempt from this distance calculation);
- Within three hundred (300) feet of any wetlands (facility drainage or sedimentation control structures are exempt from this distance calculation);
- Within a perennial stream;
- Within a 100-year floodplain;
- Within twelve hundred (1,200) feet of any public or private water supply well in existence at the time the zone is established;
- Within 200 feet of any known fault or other extreme hydrological or geological conditions;
- Municipal solid waste landfills are prohibited within 6 miles of an airport, 49USC §44718(d);
- Within 1,000 feet of the nearest edge of the right-of-way of any state trunk highway, interstate, or federal aid primary highway, or the boundary of any public park; and
- Within 500 feet of an occupied dwelling.

Tentatively prohibited: All other areas of the county where not specifically prohibited in 54CSR4.

As long as Tucker County has a landfill, there will not be a need for a transfer station that would transport mixed solid waste. The county may be in need of one to handle hazardous waste, however. The purpose of a transfer station, as the Authority sees it, is to attempt to save time and money. It would save time because customers wouldn't have to drive to the closest landfill, which may be 100 miles away every time they fill their vehicle. It would save money, not only on gas, but also by cutting down on the number of

trips that would need to be made to the landfill. In the event Tucker County did not have an operating landfill then a transfer station would be necessary. The most appropriate site would be on existing landfill property which would satisfy siting requirements and where the Authority would not have to purchase additional land. In addition, operation of the transfer station could be combined with continued monitoring and treatment of leachate from the old landfill.

“Composting Facility” - means any solid waste facility processing solid waste by composting, including sludge composting, organic waste or yard waste composting, but does not include a composting facility owned and operated by a person for the sole purpose of composting waste created by that person or such person and other persons on a cost-sharing or non-profit basis and shall not include land upon which finished or matured compost is applied for use as a soil amendment or conditioner.

As long as compost windrows are turned regularly and handled in an efficient manner they shouldn't produce an odor or attract scavenging animals. With taking this into consideration, the Authority feels that the authorization of compost facilities should be a relatively simple one.

Authorized: None.

Prohibited: These areas are prohibited because of one or more of the criteria established in Title 54 Legislative Rules, Series 4, including the following areas

- Public lands;
- Within 300 feet to any regularly flowing stream, perennial stream, pond, lake, wetland or spring;
- Within a flood plain;
- Within 2000 feet of any health care facility, school, church or similar type of institution;
- Within areas which are geologically unstable or where the site topography exceeds six percent grade;
- Within 200 feet of drinking water supply wells and occupied dwellings;
- Within 50 feet of federal or state highway right-of-way or within twenty-five feet of an adjacent property owner's boundary line; and
- Within 10,000 feet to the closest point of any airport runway used for or planned to be used by turbojet aircraft or within 5,000 feet to the closest point of any airport runway used only by piston type aircraft or within areas where a substantial bird hazard to aircraft would be created.

Tentatively prohibited: All other areas of the county where not specifically prohibited in 54CSR4.

Composting facilities could be located in areas that are not densely populated which would allow for maximum use of the land for establishing windrows.

It would also be beneficial to establish compost facilities at landfill sites. This way the humus could be used as a cover for the landfill, which would enhance the revegetation process of the landfill.

CONCLUSION

The Tucker County Solid Waste Authority has a Class B landfill. No other sites in the county are currently felt to be suitable for development of a landfill. The Authority will continue to encourage source separation of recyclables. Mixed refuse transfer stations will not be needed with an on-going landfill facility and energy recovery facilities or material recovery facilities are not felt to be feasible. If any of the latter were to be further considered in the future, the existing landfill site would be the most suitable location.

AMENDMENT PROCESS

Consideration of Amendments

The proposed regulations provide for amendments to this siting plan at any time by the Authority. A public hearing is required. State Board approval is needed before any amendments become effective.

Any person or group may apply to the Authority for an amendment re-designating a zone or any portion of a zone. The "applicant" has the burden to affirmatively and clearly demonstrate, based on the criteria listed above, that the requested re-designation is appropriate and proper and that any solid waste facility sited could be appropriately operated in the public interest at the proposed location.

In order to make such a demonstration, the applicant is responsible for making whatever examination is necessary by the Authority and for submitting specific detailed information to the Authority.

Five-Year Review

A five-year review is also required. The plan must be updated to include the next twenty years after the date of the five year review. A public hearing and Board approval are also required.

Appendix A

Public Participation Process

Appendix B

Plat of Survey of Landfill Property

Appendix C

Tucker County Facilities