

DETERMINATION OF NON-SIGNIFICANCE
WAC 197-11-970 & Spokane County Code 11.10.230(c)

PROPOSAL: Spokane County Draft Biosolids Management Plan, April 2008

DESCRIPTION OF PROPOSAL: The proposed Project is a Biosolids Management Plan to be implemented in conjunction with the Spokane County Regional Water Reclamation Facility. Spokane County has evaluated numerous alternatives for biosolids management and is recommending land application and composting as their preferred alternatives.

The Draft Biosolids Management Plan report and the Environmental Checklist are available for review on the Spokane County Website: www.spokanecounty.org/utilities/

APPLICANT: Spokane County Public Works Department
Attn: Bruce Rawls, Division of Utilities
1026 West Broadway Avenue
Spokane, WA 99260-0430
(509) 477-3604
brawls@spokanecounty.org

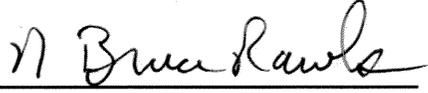
LOCATION OF PROPOSAL: The Biosolids Management Program for Spokane County will occur within Spokane County, and specific land application sites will be determined and permitted at a later time.

LEAD AGENCY: Spokane County, Public Works Department, Division of Utilities

DETERMINATION: The lead agency for this proposal has determined that it does not have a significant adverse impact on the environment. An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

This DNS is issued under 197-11-340(2). The lead agency will not act on this proposal for 14 days from the date below. Comments must be submitted by 5:00 PM, April 25, 2008.

RESPONSIBLE OFFICIAL: N. Bruce Rawls, P.E., Division of Utilities Director
Spokane County Public Works Department
1026 West Broadway Avenue
Spokane, WA 99260-0430
(509) 477-3604

DATE ISSUED: April 11, 2008 **SIGNATURE:** 

You may appeal this determination within 14 calendar days after it becomes final, commencing April 11, 2008 to the Spokane County, Division of Utilities, Attn: R. LaSalle, 1026 W. Broadway Ave, Spokane, WA 99260-0430 or rlasalle@spokanecounty.org. The appeal must be submitted in writing, by 5:00 PM, April 25, 2008, and contain the specific factual objections.

Contact Roxane LaSalle at Spokane County, Division of Utilities, (509) 477-7283, to read or ask about the procedures for SEPA appeals.

A copy of this DNS was mailed to:

1. U.S. Army Corp of Engineers (Eastern WA Office)
2. U.S. Department of Agriculture, NRCS
3. Department of the Army (Seattle District Corp)
4. WA State Department of Ecology (Olympia and Spokane)
5. WA State Department of Fish and Wildlife
6. WA State Department of Natural Resources (Colville)
7. WA State Department of Health (Spokane)
8. WA State Department of Transportation (Spokane)
9. Spokane Regional Clean Air
10. Spokane County Health District
11. Spokane County Building and Planning Division
12. Spokane County Engineering and Roads Division
13. Spokane County Housing & Community Development
14. Avista Utilities (Electric & Gas Services)
15. Chevron Pipeline Company
16. Yellowstone Pipeline Company
17. Qwest
18. Comcast
19. Spokane Transit Authority
20. Waste Management, Inc.
21. City of Airway Heights
22. City of Spokane
23. City of Spokane Valley
24. City of Liberty Lake
25. Liberty Lake Sewer & Water District
26. Town of Millwood
27. Spokane Tribe of Indians
28. HDR Engineering, Inc.
29. Valley Library
30. North Spokane County Library
31. Main City Library

Environmental Checklist

A. BACKGROUND

1. Name of proposed project, if applicable:

Spokane County Regional Water Reclamation Facility – Biosolids Management Program

2. Name of applicant:

Spokane County Public Works Department, Division of Utilities

3. Address and phone number of applicant and contact person:

Spokane County Public Works Department
1026 West Broadway Avenue
Spokane, WA 99260-0430
(509) 477-3604

Contact: Bruce Rawls, Utilities Director

4. Date checklist prepared:

March 21, 2008

5. Agency requesting checklist:

Spokane County Public Works Department, Division of Utilities

6. Proposed timing or schedule (including phasing, if applicable):

The new Spokane County Regional Water Reclamation Facility (SCRWRF) is scheduled to begin operations and begin producing biosolids in 2012. No biosolids will be generated until the SCRWRF begins operation.

7. a. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

This checklist is prepared in anticipation of building a new regional water reclamation facility. The County will submit a permit application to the State of Washington Department of Ecology for coverage under the state biosolids management program prior to beginning operations. Specific land application sites will be identified at that time, or at later dates in accordance with a general land application plan submitted with the County's biosolids permit application. The County has identified some potential compost facilities in its biosolids management plan, and may propose to use one or more of those facilities in its permit application, or may propose to site its own compost facility. The permit process is subject to public notice and review.

b. Do you own or have options on land nearby or adjacent to this proposal? If yes, explain.

The new SCRWRF will be located at the old stockyards site. The site is bounded by Burlington Northern railroad tracks on the south, North Freya Street on the west, and adjacent industrial properties on the north and east. Biosolids land application and/or composting will take place at other locations away from the new water reclamation facility.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

- *Draft Biosolids Management Plan* for Spokane County Division of Utilities, April 2008. HDR Engineering, Boise, Idaho.
- Final EIS (February 2002), Final Supplemental EIS (December 2002) and Addendum to Final EIS and Final SEIS (December 2006) for Spokane County Wastewater Facilities Planning documents.

All related environmental information and related studies are posted on the Utilities Division Website www.spokanecounty.org/utilities/

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

The SCRWF is subject to a complex permitting process. This checklist contemplates management of the biosolids produced by the SCRWF at land application sites which are not specifically identified at this time, and/or at new or existing composting facilities. It is not known if other approvals or proposals might affect biosolids management decisions made by the County. State biosolids program rules require the County to comply with all other applicable federal, state, and local rules. If there are any related approvals or proposals which require attention or resolution they will be resolved at the time individual land application sites are identified.

10. List any government approvals or permits that will be needed for your proposal, if known.

Biosolids Permit, State of Washington Department of Ecology.

If the County proposes to site a new composting facility, that facility will be subject to a separate local approval process and would also come under the state biosolids permit program.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

This SEPA checklist has been prepared to evaluate two biosolids management alternatives identified in the *Draft Biosolids Management Plan* (April 2008) prepared for the County by HDR Engineering, Inc.

Biosolids will be generated by a yet to be constructed water reclamation facility which will be owned and permitted by Spokane County. Spokane County Utilities provides wastewater management for residential, commercial and industrial customers in the Spokane Valley and North Spokane service areas. Wastewater treatment is currently facilitated through a contract with the City of Spokane. County wastewater is treated at the Riverside Park Water Reclamation Facility operated by the City of Spokane. Due to limited capacity at the Riverside Park facility, coupled with increases in population and service area and a continued effort to reduce the number of residences served by septic systems, Spokane County Utilities expects a significant increase in demand for wastewater treatment over the next 25 years. In order to meet increasing demand for services, the utility will be constructing a new regional water reclamation facility.

Water reclamation produces an effluent product which can be discharged back to surface or ground waters, or in some cases reused for irrigation and other purposes. A second product of the water reclamation process is sewage sludge. The County has identified land application of biosolids and composting as preferred management methods.

Water reclamation generates large amounts of microorganisms which help clean the water. Those organisms must also be removed before the final effluent product is discharged. Those microorganisms along with solids removed early in the treatment process will be treated in an anaerobic digester system. The digester is essentially a vessel for liquid composting. The digestion process is designed to stabilize

the solids (vector attraction reduction) and provide pathogen reduction (Class B pathogen reduction). Once treated to meet the applicable regulatory requirements, the product is referred to as biosolids. This is an important distinction because biosolids are suitable for beneficial end uses. Biosolids are used as a soil amendment and as a substitute for commercial fertilizer products to grow a wide variety of crops. Under state law (Chapter 70.95J RCW), biosolids are considered a valuable commodity and the state is directed to maximize beneficial use of biosolids. The most prevalent method of biosolids management in the United States, and in Washington State is land application. The State of Washington Department of Ecology will not support disposal (non-beneficial use) of biosolids as a long term management solution.

The County is not limited in its choice of land application sites, and may develop its own sites or contract with an existing facility. Land application sites will be identified at a later date and are subject to a separate review process.

The County is considering composting at an existing off site facility, or at a future new composting facility. Composting is not a management method, per se, but is an additional step in the treatment process. Composting produces biosolids which meet *exceptional quality* standards for biosolids. Those standards include Class A pathogen reduction, vector attraction reduction (stabilization), and low pollutant concentrations. The goal of composting is a product suitable for marketing and distribution without further limitations on final use, whereas land application of the digested biosolids product requires site specific plans and approvals under the state biosolids management program.

This SEPA checklist has been prepared to evaluate possible impacts from the preferred alternatives. Specifically the County is proposing to develop a program for application of Class B biosolids to agricultural land, and/or composting of biosolids to meet exceptional quality standards, followed by marketing and distribution of the finished product.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

Pending public input and further review by local and state officials, actual land application sites have not yet been identified. The State Department of Ecology provides guidelines (WDOE 93-80, *Biosolids Management Guidelines*) to help managers identify and evaluate potential land application sites. Technical support is available from state regulatory experts, consultants, universities and others. Public notice must be carried out when specific sites are indentified. All sites must comply with state regulatory requirements for biosolids management practices, including application at approved agronomic rates and set backs to property lines, surface water, and other important features. The Department of Ecology may also impose addition or more stringent requirements under its permitting process to address any unique requirements of a generating facility or at a specific land application site.

If the County pursues composting, it will either use an existing facility operated by a second party, or construct its own compost facility at a remote site. A new composting facility would not be located at the SCRWRF site because of space requirements and potential generation of odors. Several private contractors have existing facilities to compost biosolids including Royal Organics in Vantage, Washington; Glacier Gold in Olney, Montana; and EKO Compost in Lewiston, Idaho. These or other facilities may be used by the County at a future date.

13. Does the proposed action lie within the Aquifer Sensitive Area (ASA)? The City of Spokane, Spokane Valley or Liberty Lake?

The SCRWRF will be located in the Critical Aquifer Recharge Area, but no biosolids will be placed onto the ground at that location. At the SCRWRF, Class B biosolids will always be contained within treatment

structures, storage containers, and/or covered transport vehicles. The County will not propose to land apply any Class B biosolids in High Susceptibility Areas of the Critical Aquifer Recharge Area within Spokane County. Federal and state biosolids program rules do not restrict these applications, although proper management is required. The County believes, however, that removing these areas from consideration will reduce citizen concerns and allow the County to focus on developing a good beneficial use program on land application sites outside of the high susceptibility areas.

Composting facilities require sealed surfaces and are designed to avoid impacts to ground (or surface water) and should not adversely impact the Critical Aquifer Recharge Area.

14. The following questions supplement Part A.

a. Critical Aquifer Recharge Area (CARA) / Aquifer Sensitive Area (ASA).

- (1) Describe any systems, other than those designed for the disposal of sanitary waste installed for the purpose of discharging fluids below the ground surface (includes systems such as those for the disposal of stormwater or drainage from floor drains). Describe the type of system, the amount of material to be disposed of through the system and the types of material likely to be disposed of (including materials which may enter the system inadvertently through spills or as a result of firefighting activities).**

Compost facilities do not dispose of any wastes below the ground surface. Composting takes place on a sealed surface (such as asphalt), and may occur under cover or in an enclosed building. Curing piles of the finished product prior to sale may be stored on the ground. Protection of surface water run on and run off are specifically addressed in the design and operation of compost facilities.

Biosolids land application sites are not systems as such, but they are active facilities. Land application sites are selected based on a variety of criteria including soils, proximity to sensitive areas, distance from the treatment works generating the biosolids, prospects for a good partnership with the land owner/site manager, and cost. Although there are many good sites for biosolids land application, there are few ideal sites. Typically sites are managed to mitigate any limitations of the particular site.

A typical biosolids land application site operates from a staging area where biosolids are delivered prior to being land applied. Biosolids are delivered by truck and typically remain in the staging area for no more than a few days before they are applied. Application equipment is often a tractor-towed manure spreader, although some individual vehicles are specifically designed for land application of biosolids and other residuals. Application of biosolids must be coordinated with crop management. For example, on hay crops biosolids are applied in the early spring, or shortly after a cutting. For summer fallow dryland wheat, applications can begin after harvest in late summer and can proceed up to fall planting in the following year. During winter months biosolids are stored in piles in areas approved as part of an overall permitting process. With the onset of warm weather, application of stored materials commences, and the operators once again work out of staging areas as new material is delivered to the site. Agronomic rates of application are determined based on anticipated crop need (per Cooperative Extension or other authoritative recommendation), analysis of biosolids nutrient content, and residual soil nitrogen. Consequently the land application operation must also be coordinated with soil and biosolids sampling. Application rates are approved by the State of Washington Department of Ecology. The entire biosolids operation falls under an over-arching permit, which requires analysis of biosolids for compliance with federal and state qualitative standards, as well as development and adherence to site specific land application plans.

- (2) Will any chemicals (especially organic solvents or petroleum fuels) be stored in aboveground or underground storage tanks? If so, what types and quantities of material will be stored?**

Biosolids will not be stored in aboveground or underground tanks. Land application of biosolids to agricultural land is a typical farming operation similar to application of manure. Growers may have

fuels and other liquids stored on site as part of their normal farming operations. Typically, biosolids are delivered to a staging area – an area of short term storage at a land application site – and from the staging area are loaded into vehicles appropriate for applying them to the land at a specified rate. In eastern Washington, application during winter months is generally not possible because of snow cover and frozen soils. During winter months biosolids are stored (piled) at land application sites. Winter storage locations are approved by the Department of Ecology as part of the permit review process. Consideration is given to proximity to surface waters or conveyances, slope and potential for runoff, and ease of access. The amount of biosolids stored on a site varies with the size of the site, the nutrient content of the biosolids, and the agronomic requirement of the crop, but is not allowed to exceed the capacity for land application at the site. In the spring after snow melt and when soils have stabilized and can accept equipment traffic, biosolids are removed from winter storage and applied to the land. A typical season of land application is April through November depending on overall weather and local variations in climate.

Composting can really be visualized in two phases. Active composting converts organic materials to the beneficial compost end product, and in the case of biosolids is designed to achieve the treatment necessary to allow marketing and distribution of the finished end product without the need for additional regulatory controls. Finished products are typically moved to a curing pile prior to actual sale. The volume stored depends on the amount of material received by the facility and local demands. Generally compost facilities face some limitation on storage due to the physical size of the operation, but this will vary with the specific facility.

(3) What protective measures will be taken to insure that leaks or spills of any chemicals stored or used on site will not be allowed to percolate to groundwater? This includes measures to keep chemicals out of disposal systems.

The U.S. EPA has evaluated the safety of biosolids land application through a comprehensive risk assessment process. The end result is that nine pollutants of concern are regulated for the land application of biosolids: arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, and zinc. Because of improvements in manufacturing processes, wiser product selection by homeowners, and an effective industrial pretreatment program, biosolids in Washington state are typically far below the federal limits for pollutant thresholds and biosolids produced by Spokane County are expected to meet all applicable standards for pollutant limits. Biosolids are known to contain trace amounts of other chemicals. Concentrations are typically low and no standards of regulation are currently in place for trace pollutants although research and evaluation is ongoing. Biosolids are also regulated for pathogen reduction and vector attraction reduction. Biosolids are tested specifically for nitrogen content and are required to be applied to the land at an agronomic rate to protect against nitrate leaching to groundwater. Land application projects are further supplemented by soil sampling. Fall sampling can determine whether applied nitrogen exceeded the crops' demand. Fall and spring sampling can be used to help managers fine tune agronomic rates of application on sites. The County's biosolids management program is subject to regulation and comprehensive permitting under the state biosolids management program implemented by the State of Washington Department of Ecology.

There have been occasional instances of mismanaged biosolids programs which have attracted media attention from time to time. These situations are in some cases the result of poor management practices. The overwhelming experience with biosolids land application is that it has been safe and beneficial. There are many successful programs in Washington State, most of which rely on land application in an agricultural setting.

Compost facilities incorporate design elements to protect against run on of stormwater, or runoff of process wastewaters, and are typically carried out on a sealed surface. Finished products are usually moved to a curing pile prior to sale. Compost facilities are sited and permitted with the protection of water resources as a primary consideration.

(4) Will any chemicals be stored, handled or used on the site in a location where a spill or leak will drain to surface or groundwater or to a stormwater disposal system discharging to surface groundwater?

There are two types of storage activities at biosolids land application sites. *Staging* and *winter storage*.

Staging areas are typically close to access points and in a location convenient for equipment operations. No “spills” of biosolids are contemplated. Rather, management is orderly: biosolids are tipped from the transportation vehicle at the staging area and temporarily stockpiled, or loaded directly into the land application vehicle. Biosolids typically remain in a staging area for at most a few days before they are applied to the land. At the twenty percent solids level projected by the County, biosolids have the consistency of damp earth. Small amounts of liquid may be observed on tipping from the delivery vehicle, but free water is minimal and specific management controls for liquids are generally unnecessary (note, some programs do store or apply liquid biosolids, but this proposal is for a processed, dewatered biosolids product). Staging areas are restored after use.

Winter storage locations are required to be approved by the Department of Ecology as part of the permitting process. The agency will typically look for areas without a seasonal high water table, and where slopes are minimal so that runoff (and run on) is avoided. The agency is especially concerned with adjacent surface waters or potential conveyances. Berms around winter storage areas may be required in some cases, and some sites may not be suitable for winter storage at all. The amount of material stored on a site is not allowed to exceed the capacity of the site when the biosolids are applied at an agronomic rate.

Active composting typically takes place on a sealed surface, and surface water systems are isolated from process wastewaters which are collected on site or directed to a sanitary sewer. Compost curing piles (of the finished product) may be stored on the ground, on sealed surfaces, or in some cases under cover. Regardless, compost facilities are still required to protect against contamination of off site surface waters.

b. Stormwater.

(1) What are the depths on the site to groundwater and to bedrock (if known)?

As no specific sites for land application have been identified, the depth to groundwater is not known. Proximity of groundwater is a key criterion for evaluating a land application site and preparing a site specific land application plan. When preparing a site management plan, soil data from the Natural Resource Conservation Service is evaluated; data on typical depths to groundwater is available from that resource. A review of available data on wells located on site or within a quarter mile of the site is also conducted. The State Department of Ecology has an on line data base which is easily consulted for that purpose, and which can sometimes be supplemented local knowledge as well. The Department of Ecology requires biosolids managers to include a groundwater protection plan in their permit application package whenever the seasonal high level of groundwater will be within three feet of the surface on a site.

The depth to groundwater at the identified existing compost facilities is not known, but is not considered critical for this process as they are existing facilities. The depth to groundwater at any new compost facility is unknown at this time since no sites have specifically been identified. Depth to groundwater usually is not a critical concern for compost facilities unless the seasonal groundwater table is high enough to interfere with operations. In that case special steps would be required to protect the resource, but it is most likely a compost facility would not be sited in such a location to begin with.

(2) Will stormwater be discharged into the ground? If so, describe any potential impacts.

The land application of biosolids does not involve the collection or discharge of stormwater.

Some compost facilities are enclosed. Compost facilities constructed in the open must be designed to control run on and run off. Clean stormwater from compost facility areas and surrounds may be diverted to swales and an infiltration system. Leachate that may be produced in the composting process is kept separate from stormwater, and process waters are collected and reused or discharged to a treatment system.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (circle one): flat, rolling, hilly, steep slopes, mountainous, other.

Agricultural land application sites are typically flat to gently rolling, with some localized areas of steeper relief. Biosolids are only applied to areas where crops are planted.

Compost facilities require a level working area for composting, delivery of feedstocks, and removal of finished products.

b. What is the steepest slope on the site (approximate percent slope)?

Typical farming practices are generally limited to areas with a slope of 15% or less. Biosolids managers typically look for sites with flatter slopes, as it makes site management easier.

For compost facilities steepness of slope is not a factor as sites must generally be level.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Soil types are unknown at this time. Evaluation of a land application site and preparation of a site specific land application plan requires a review of soil data available on line from the Natural Resource Conservation Service. Soils are evaluated against an ideal and management practices are adjusted if necessary.

Soil types at compost facilities are generally not relevant except for considerations relating to construction activities.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

This cannot be known without first identifying a specific site or sites. The sites where biosolids will be land applied will be under cultivation. It is reasonably expected that unstable soils will not be suitable for farming and will be avoided by the grower.

It is unlikely that a compost facility would be located on an area of unstable soils. This can only be evaluated when a specific site is proposed.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Biosolids are not used as a "fill," and in fact are applied sparingly. A typical rate of application is around five dry tons per acre – about 10,000 pounds where the top 6 inches of soil weigh in nominally

at about 2,000,000 pounds per acre. The rate of application varies with the need of the crop and the nutrient concentration of the biosolids. No grading is necessary for the land application of biosolids. Biosolids may be tilled into the soil after land application.

Construction of a compost facility can require filling and grading to achieve the generally level area required for composting and materials management. The amount of fill and extent of grading will depend on the initial character of the site.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Application of biosolids is generally expected to reduce erosion potential; certainly erosion potential will not increase as a result of this project. Generally, the addition of biosolids to soils is expected to increase organic matter content and improve plant health, thereby improving soil condition overall.

If a new compost facility is constructed, it is possible that erosion could occur prior to completion of the work. The potential for erosion during site construction is not considered high since construction would likely occur during dry months of the year.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

For biosolids land application, a small paved area is required at the land application site for storage of biosolids during winter periods. The impervious area will typically cover less than 0.5 % of the site, but will depend on the size of the land application site.

For composting, the amount of land covered with an impervious surface will depend on the size of the facility. At a minimum the active composting area is expected to be covered, and likely the access roads and parking area.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Biosolids land application goes hand in hand with typical farming practices applicable to the particular site where they are being applied. Certain types of biosolids are required to be tilled in after application, while others do not require tillage. These questions are taken into consideration when developing the site specific land application plan.

Appropriate site management techniques are available to reduce erosion potential on sites during construction.

2. Air

a. What types of emissions to the air would result from the proposed (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Biosolids have an odor which depends in part on the wastewater treatment process from which they are derived, and how they are subsequently processed. Characterization of any odor is also a matter of subjective interpretation. Processed biosolids tend to have a musty, earthy organic smell, and some ammonia smell is common. A person may make some association with sewage, but biosolids generally do not have the same odor as sewage. The odor is most detectable when biosolids are tipped from a delivery vehicle and when they are applied to the land. Odors tend to be localized and dissipate fairly quickly after land application.

Biosolids are required to achieve a standard known as Vector Attraction Reduction (VAR). VAR is a standard of treatment or performance designed to reduce the attraction of vectors (insects for example) to the biosolids, which may carry disease away from the site. Biosolids are also required to

undergo a pathogen reduction processes or testing to further minimize the potential for disease. The biosolids management plan prepared for the SCRWRF specifies that biosolids produced by the County must be treated to meet VAR *at the treatment facility*. Both anaerobic digestion and composting will achieve the required standard. A secondary means of VAR is tillage following land application. Tillage is not required for biosolids which have first met VAR at a treatment facility, but it is an effective secondary means of odor control on land application sites when necessary. Tillage is generally an option available to land managers with seasonally cultivated crops, including summer fallow winter wheat. Tillage on dry soils can create dust, typical of dryland farm operations. Internal combustion engines powering transport tractors and farm equipment produce exhaust emissions.

Composting is a complex process. Biosolids by themselves do not compost well since they tend to be too moist and pack too densely. Consequently an adequate supply of oxygen cannot be maintained in the pile to support a proper aerobic composting process. For that reason biosolids are typically combined with other compostable feedstocks. Woodchips are commonly used as a feedstock, although in some areas of the state they are in short supply and prices are climbing. Biosolids can be composted with yard waste; woody fractions are typically chipped before addition. Occasionally recoverable bulking agents such as tire chips have been used. The various components of a compost facility give rise to different odors. Odor compounds potentially produced during composting include sulfides, organo-sulfides, and ammonia. The most potential for odors occurs when piles are initially mixed, and later if they are turned. Biosolids may be composted using turned pile systems as well as static aerated piles. The delivery of feedstocks to a compost facility can generate dust and odors when materials are tipped at the site. Additional dust can be generated from onsite handling including chipping or grinding prior to processing.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.**

No.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:**

Biosolids are required to meet a standard for VAR – roughly equivalent to odor control, either in the treatment process itself or at the land application site. Spokane County proposes to meet VAR requirements through the treatment process. Incorporation in the soil at land application sites is known to control odors. Both approaches have been shown to be effective. The likely fairly remote nature of land application sites further decreases the potential for odor to become an issue.

Where odor is a concern, composting may occur in an enclosed building where blowers direct inside air through biofiltration systems. Biofiltration is known to be an effective means of odor control. Application of these features depends on the design of the facility and potential for odor impacts.

3. Water

- a. Surface:**

- (1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

Since no specific sites are identified with this checklist, the proximity of surface water is unknown.

- (2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

Biosolids land application seldom “requires” work within 200 feet of surface waters. The available land base for biosolids land application in Washington State far exceeds the amount of biosolids

produced. Managers generally try to avoid areas immediately adjacent to surface water bodies as additional regulatory requirements may come into play. State guidelines specify setbacks to surface waters, including intermittent surface waters which are the most common case on agricultural land application sites.

It is possible that a compost facility could be sited within 200 feet of surface waters, but as with land application sites, the selection process typically favors sites with fewer potential administrative hurdles and where environmental issues are easier to manage.

- (3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

None.

- (4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

A grower may have a surface water right, and may exercise that right in his/her daily farming operations, but biosolids land application itself does not require withdrawals or diversion of water resources.

It is unlikely that a compost facility would require a surface water right, although a source of water is necessary. The most likely source is a municipal supply or a well.

- (5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

It is possible that a land application site will be located within a 100-year flood plain. Application in flood plains is not prohibited under state or federal rules. Regulatory agencies and land managers, however, must take into account proximity to surface waters, any specific other regulations that come into play as a result, and the season of application. Winter time storage may be restricted or prohibited in a flood plain area.

Since the location of any proposed new compost facility is unknown, presence in a flood plain area is not known. It is likely the selection process would seek to avoid flood plain areas if a new compost facility is developed.

- (6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

Site specific land application plans are specifically written with the intent of avoiding this kind of impact. Regulatory personnel look closely at site topography and adjacent surface waters or conveyances. Biosolids land application sites are intentionally managed to protect adjacent surface water bodies from accidental overspray during application of biosolids and any contaminated runoff.

Compost facilities may generate leachate, but discharge to surface waters would not be allowed under state water quality laws.

b. Ground:

- (1) Will groundwater be withdrawn, or will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.**

A grower may have a groundwater right and biosolids may be applied to an irrigated crop, but neither groundwater withdrawal nor liquid discharge to groundwater are required for land application of biosolids.

A compost facility requires a source of water. If a municipal supply is not available, the most likely source is a well. There would be no discharge of waste materials to groundwater.

- (2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, or the number of animals or humans the system(s) are expected to serve.**

Biosolids were specifically removed from the definition of solid waste under state law in 1992, and are defined as a valuable commodity under state law. Biosolids are not 'discharged' into the ground. Rather, biosolids are spread on the land by application equipment designed to achieve a rate of application consistent with predetermined crop nutrient needs. In some cases biosolids are tilled into the soil after land application. This tillage is a means of vector attraction reduction (previously discussed), but also preserves the ammonia content of the biosolids which is valuable part of the nitrogen component delivered by the biosolids.

Solids in a water reclamation process are derived from different sources. Generally, wastewater goes through a screening process at the headworks of the treatment facility. The material screened out is trash – cloth, plastics, etc, and will be disposed as solid waste. Grit – mostly sand and pebbles and other material with a high specific gravity - is removed by various methods, and will also be disposed of as a solid waste. The organic solids that become the biosolids *after* treatment are generated from two sources. Shortly after entering the treatment works, sewage may undergo a settling process. The primary solids accumulated in that process are periodically removed for further treatment. Large amounts of microorganisms are actually cultivated in the treatment of wastewater. Those microorganisms remove solids from the wastewater – the solids are their food source, but eventually the mass of microorganisms itself must be removed, and those solids also become part of the biosolids eventually. The untreated solids are then processed by various means to produce biosolids. At the SCRWRF, the process selected is anaerobic digestion. Anaerobic digestion is a proven technology widely used for stabilizing biosolids. The stabilized biosolids may be further treated by removing some of the water. The County will dewater its biosolids product to about 20% solids. At that solids concentration the biosolids have the consistency of moist earth. Dewatered solids are much less expensive to transport and are in some respects easier to manage in land application projects. The final biosolids product will be tested and is reasonably expected to meet standards for pollutant limits, and pathogen and vector attraction reduction. When standards are met, the residual solids – originally referred to as sewage sludge, can properly be called biosolids.

A compost facility would produce a product suitable for marketing and distribution to the general public. Unless some form of industrial on site wastewater disposal system is approved for the compost facility there should be no discharge of wastes to the ground from a composting activity.

c. Water Runoff (including storm water):

- (1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

Biosolids are not a source of runoff and do not require collection or disposal measures after land application, although buffers are put in place on land application sites as a part of standard land application site design.

Compost facilities can have run off from either active composting piles or from curing piles (where finished product is stored). The design of any new compost facility is not known at this time, but process wastewaters are collected and handled separately from storm waters. It is possible during drier times of the year that the compost process would have a moisture deficit, and no wastewater would be produced.

(2) Could waste materials enter ground or surface waters? If so, generally describe.

If over applied, liquid biosolids could runoff from a land application site. If over applied, excess nitrate from biosolids could leach beyond the rooting zone of the crop and eventually to groundwater.

If not properly managed, composting could lead to surface water impacts from process wastewater and contaminated stormwater runoff.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

Every land application site has a site specific land application plan. Intrinsic site factors including soils, topography, depth to groundwater and proximity of surface water are all considered when developing site plans, and the State Department of Ecology approves plans with those and other considerations in mind. Ecology has issued guidelines with recommended buffers to surface water, although those may be adjusted to suit the individual site circumstance. Biosolids are required to be applied at an agronomic rate. Biosolids nitrogen is analyzed, and residual soil nitrate determined from soil sampling is taken into consideration when approving application rates. Typically fertilizer guides produced by Cooperative Extension agencies are consulted to determine crop needs, although other authoritative sources may also be used. The County will also consider phosphorus in selecting land application sites and in determining application rates.

Compost facilities are intentionally designed and operated to avoid impacts to surface waters. Run off of excess surface water is controlled where necessary by diversion systems. Process wastewater (if any) is collected and discharged to a sanitary system or reused. No impacts to groundwater are contemplated from the composting activity.

4. Plants

a. Check or circle types of vegetation found on the site:

- deciduous tree: alder, maple, aspen, other** (Domestic Landscaping)
- evergreen tree: fir, cedar, pine, other** (Domestic Landscaping)
- shrubs** (Domestic Landscaping)
- grass** (Domestic Landscaping)
- pasture**
- crop or grain, alfalfa, wheat**
- wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other**
- water plants: water lily, eelgrass, milfoil, other**
- other types of vegetation: Native grasses**

Biosolids will be applied to agricultural lands, therefore a crop – grain, legume, hay, etc. will be on site. Other plants may be in the surroundings, but biosolids will be applied to the actively farmed area of the site.

The type of vegetation potentially present at a new compost facility is unknown at this time.

b. What kind and amount of vegetation will be removed or altered?

A crop is generally harvested from a land application site at some point, though it is always possible that the crop would not be harvested due to poor quality or market prices.

Construction of a new compost facility would require clearing and grading of the future work area. The kind of vegetation to be removed is not known, absent the selection of a site.

c. List threatened or endangered species known to be on or near the site.

None can be identified until specific sites are under consideration. Since land application is only contemplated here for agricultural lands, impacts to threatened or endangered species are not expected.

The presence of any threatened or endangered species on a proposed compost facility site would likely preclude construction at that location.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

The goal of biosolids in an agricultural setting is to improve soil tilth and plant growth and achieve targeted crop yields. Enhancement of vegetation on the site is not specifically a goal other than to improve crop yields through fertilization.

Compost facilities may use some of the product they manufacture to develop on site landscaping in order to improve site aesthetics, or reduce impacts from lights, dust or noise.

5. Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

Birds:

Mammals:

Fish:

Other:

Many animals may be on or near an agricultural site.

The kinds of animals near a proposed compost facility cannot be identified at this time since a site has not been identified.

b. List any threatened or endangered species known to be on or near the site.

None can be identified at this time.

c. Is the site part of a migration route? If so, explain.

This cannot be ascertained until sites are identified at a later date.

d. Proposed measures to preserve or enhance wildlife, if any?

The application of biosolids to agricultural sites is not generally intended for wildlife enhancement. Biosolids have been used to improve habitat on non-agricultural sites, but that is not proposed here. Land application of biosolids is typically carried out as a normal farming practice and incremental impacts to wildlife are expected to be minimal.

The construction of a new compost facility would not likely involve wildlife preservation or enhancement.

6. Energy and Natural Resources

- a. **What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

No energy is required for a land application site. Typically, diesel-powered tractor trailer combinations are used to transport biosolids from the point of generation to the land application site. Farm equipment such as tractors towing spreaders or specialized application vehicles are used for land application. Typically these vehicles are diesel powered.

Compost facilities require electrical energy to power lights, blowers, motors and pumps in addition to fossil fuels to power equipment.

- b. **Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

No.

- c. **What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:**

Typical biosolids contain from 2-4% solids by weight when they first exit the treatment process. They are very liquid and easily pumped or sprayed. Transportation of liquid biosolids is sometimes done when the application site is nearby, but transporting liquid greatly increases the number of truck trips and cost of a program, and of course increases the amount of fuel consumed for transportation. The County's treatment facility will incorporate additional processing to dewater its biosolids to about 20% solids. One example operation in the state reduces truck trips from about 1,200 per year to less than 100 per year by dewatering its biosolids. The reduction in vehicle trips varies with the operation, but it is typically very significant.

It is not known what types of energy conservation features might be incorporated in a new compost facility, if constructed.

7. Environmental Health

- a. **Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.**

Biosolids are regulated for pathogen reduction and pollutant concentrations under federal and state laws. U.S. EPA engaged in a comprehensive analysis of and risk assessment for biosolids prior to adopting nationwide rules in 1993. Nine pollutants of concern were identified and EPA established limits for those pollutants which it believes are protective of public health and the environment. Other pollutants are present in biosolids in very small amounts. The fate of these pollutants is not fully understood, and study continues. The overwhelming experience with biosolids nationwide is that they have proven highly beneficial when land application is responsibly managed. U.S. EPA continues to support land application, and the State Department of Ecology continues to support some form of beneficial use as the proper end management point (over any form of disposal). Proper treatment and management of biosolids remain as essential components for protecting human health and the environment.

The concentration of the aforementioned pollutants is expected to be reduced in compost simply because of the dilution factor realized by the addition of a bulking agent or other compost feedstocks. It is possible that the concentration of residual pesticides could increase slightly due to use by

homeowners and possible residual in yard waste, but this is not know with certainty, nor has it been established that yard waste would be a component of the feedstock.

(1) Describe special emergency services that might be required.

It is possible that an accident in transit would result in a spill of biosolids on the roadway. For this reason the State Department of Ecology requires transporters of biosolids to prepare a Spill Prevention and Response Plan. Aside from emergency vehicles that could be needed in any accident situation, a front-end loader and/or personnel with shovels would generally be sufficient to clean up any spilled material.

Compost facilities have caught fire at times, and emergency fire response may be needed. This is not a common problem.

(2) Proposed measures to reduce or control environmental health hazards, if any:

Biosolids are a highly regulated commodity. They are analyzed for pollutant concentrations, including pathogen reduction and must meet appropriate standards prior to land application. Individual land applications sites are managed according to a site specific land application plan which is required to consider critical site features as well as potential impacts to surrounding properties. Generators are required to report violations of permit conditions, and must submit an annual report each year.

Operators of vehicles transporting should carry a copy of the approved Spill Prevention and Response plan with them, and be familiar with procedures in case of an accident.

The tradeoff for compost over land application is in the manufacturing process. Biosolids compost is expected to be treated to Class A pathogen reduction and meet the highest federal/state standards for a material derived from biosolids before it leaves the compost facility. This is because there are no further restrictions on use once it is sold (or given away).

b. Noise

(1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, aircraft, other)?

Noise in the area will not affect this proposal.

(2) What types and levels of noise would be created by or associated with the project on a short-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Biosolids will likely be delivered to the land application site by tractor trailer. Farm equipment including tractors and loaders will be used at the land application site itself. Biosolids operations may commence fairly early and continue into the evening, but biosolids are not applied at night. Generally, biosolids land application proceeds according to the grower's typical hours of operation. The amount of noise at the land application site will be consistent with noise levels created by the existing farm equipment and farming practices.

Noise will be generated at compost facilities from several sources, including trucks entering and leaving the facility. If woody material used in the composting requires chipping or grinding, noise will result from the operation of that equipment. Front end loaders and other mobile equipment on site, including conveyors will make noise when operating. Blowers may also make noise if they are used to aerate piles or to draw air from an enclosed facility through a biofilter. It is assumed that any new compost facility will operate during normal business hours.

(3) Proposed measures to reduce or control noise impacts, if any:

No specific measures are proposed at land application sites. Certain specialized mufflers that can significantly reduce exhaust noise are available for loaders and other on site equipment that may be employed at compost facilities. There may be other noise reduction methods available, but these cannot be described until a facility is actually proposed, and an operating plan is prepared.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

Since no specific sites have been identified, zoning and land use information is not available at this time. An agricultural zoning classification is expected for land application sites, and a compost facility would likely be located in an industrial or light industrial area, or possibly in an agricultural area.

b. Has the site been used for agriculture? If so, describe.

It is possible that a new field would be put into use, but more commonly biosolids are applied to existing fields with a history of agricultural use.

It is possible that a former agricultural site would be converted for the purpose of developing a new composting facility, but this is not known.

c. Describe any structures on the site.

Unknown at this time, but generally not relevant to this proposal.

d. Will any structures be demolished? If so, what?

Demolition is not required for biosolids land application.

It is unknown whether demolition of existing structures and any proposed new compost facility would be required.

e. What is the current zoning classification of the site?

Land application sites are typically zoned for agricultural use.

Compost facilities would likely be zoned for light industrial or industrial uses.

f. What is the current comprehensive plan designation of the site?

Land application sites are typically designated as some form of rural agricultural.

g. If applicable, what is the current shoreline master program designation of the site?

Until individual sites are proposed it cannot be known if any part of a site is subject to shoreline jurisdiction. The County will avoid sites under shoreline jurisdiction simply because of the additional work required to obtain permit approvals.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

This cannot be ascertained until individual sites are identified. The County has determined that it will not apply biosolids in the High Susceptibility Areas of the Critical Aquifer Recharge Zone.

i. Approximately how many people would reside or work in the completed project?

Population densities in agricultural areas are typically lower, and no on-site residency is required for biosolids land application. In some cases the land owner or a tenant may reside at a residence on site.

It is unlikely that anyone would live on-site at a compost facility, but there could be a care taker or resident security person.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

None are proposed.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

State biosolids rules specifically require that all facilities subject to permitting under the state biosolids program (includes biosolids land application sites and compost facilities) must be in compliance with applicable local rules and regulations, including zoning. Information on site zoning and adjacent land uses is required to be provided as part of a site specific land application plan and in the review of any proposed compost facility location.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

This project does not involve housing.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None.

c. Proposed measures to reduce or control housing impacts, if any:

Not applicable.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

No structures are associated with land application programs. Typical winter storage piles may be ten feet in height, and appear very similar to soils stockpiles.

At compost facilities, there may be administration buildings, and composting operations themselves are in some cases fully enclosed. The height of any such buildings is not known until a specific proposal for a new compost facility is developed.

b. What views in the immediate vicinity would be altered or obstructed?

At land application sites, storage piles will be visible during the winter. Generally these piles are about 10 feet in height and while noticeable, do not have a significant impact on views in the vicinity.

A compost facility would likely have some impact on views in the immediate vicinity if new buildings are constructed. Piles of feedstocks and finished product may also be visible.

b. Proposed measures to reduce or control aesthetic impacts, if any:

None are proposed for biosolids land application sites.

None are proposed at this time absent a clear proposal for a new compost facility, but use of compost in enhanced landscaping is a reasonable expectation at a new compost facility.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Biosolids land application is typically a daytime operation although vehicles arriving early or leaving near dusk may be operating headlights.

Vehicles entering and leaving a compost facility may be operating headlights. On site equipment such as loaders may also use headlights. On site offices would require interior and exterior lighting. The compost facility itself would require some exterior lights if for no reason other than safety when personnel are on site before or after normal hours. It is likely that a compost facility would operate during normal business hours and employ a lighting regimen similar to operations with outdoor yards.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No safety hazard is anticipated. Light from a compost facility might be noticeable to persons living or working nearby. It is unknown whether it would interfere with views.

c. What existing off-site sources of light or glare may affect your proposal?

None.

d. Proposed measures to reduce or control light and glare impacts, if any:

None are proposed at this time nor are expected to be needed at land application sites. A compost facility might employ directional lighting and other lighting systems that minimize the amount of glare or light emissions from the facility. This is uncertain absent a specific proposal.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

Biosolids land application is contemplated on private farmland. The most likely recreational opportunities are hunting and fishing (access), or possibly wildlife viewing. Cross country skiing or snowmobiling are also possibilities.

Recreational opportunities in the immediate vicinity of any proposed compost facility are not known at this time.

b. Would the proposed project displace any existing recreational uses? If so, describe.

Federal and state laws restrict access to land application sites for one year following land application. "Restrict" does not mean prohibit, but informed entry is expected. Generally, private landowners are not obligated to open their lands to public uses; consequently any impact would essentially be at the discretion of the owner.

It is unlikely that a new compost facility would displace any recreational uses.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

No special measures are proposed. At a minimum, proposed new sites are required to be posted for public notice, and the process of obtaining coverage under the state biosolids permit system is itself subject to a public notice process. Biosolids land application sites are required to be posted during the life of the site at common points of access, and along their perimeter advising interested persons of access restrictions and providing contact information. The information signs can be substituted for no trespassing signs in some cases. State biosolids program rules require that land owners sign a written consent prior to land application of biosolids so that they are aware of any site management or access restrictions that would ensue.

No measures to reduce the impact of a new compost facility on recreational activities are proposed at this time.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

Individual sites are not identified here. It is possible that places or objects registered or proposed for historical registers could be on or in the vicinity of a land application site or any proposed new compost facility. Biosolids land application would follow typical farming practices and impacts beyond those imposed by typical farming practices are not anticipated.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

None can be identified at this time. Biosolids land application will occur on agricultural sites. It is possible that there may be sites of cultural or historic significance in the vicinity. Biosolids land application would follow typical farming practices and impacts beyond those imposed by typical farming practices are not anticipated.

c. Proposed measures to reduce or control impacts, if any:

Site specific land application plans are developed for individual sites. The permit process allows the Department of Ecology to impose additional or more stringent requirements as necessary to assure proper site management. Any identified aspect of cultural or historical significance can be addressed at the site specific level of review. Generally impacts of this nature are not reasonably anticipated since biosolids land application follows normal farming practices.

It is expected that the review process for any new composting facility would evaluate the proximity of natural, historical, or cultural features of interest and address them at that time.

14. Transportation

- a. **Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on-site plans, if any.**

Routes of travel cannot be precisely identified at this time. It is expected that at least some land application sites will require transportation southbound on State Route 27 from Sprague Avenue. More specific routes cannot be determined at this time. Generally an all-weather access road is needed in order to facilitate winter access to a site.

Ingress/egress for compost facilities is an important consideration in the planning process. Sites must allow trucks of the expected size and weight to easily enter and exit a facility, as well as maneuver to the extent necessary while on site.

- b. **Is the site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?**

It is unlikely that public transit will be available from any of the potential land application sites, which are expected to be rural agricultural in nature.

It is possible that transit might serve the location of a proposed new compost facility, but this is not known.

- c. **How many parking spaces would the completed project have? How many would the project eliminate?**

Parking is not applicable for land application sites.

A compost facility would need to employ parking for several employees as well as guests and customers. The amount of parking required is not known at this time.

- d. **Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).**

Generally no. It is possible that some improvement could be made to site access for a desirable land application site.

Depending on the location selected, a new compost facility could require improvements to adjacent streets, particularly for points of ingress and egress.

- e. **Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

The SCRWRF site is bounded to the south by railroad property with active railroads. However, biosolids transport vehicles will enter and exit the site from either the west or the north. A rail spur might be constructed at the south side of the SCRWRF site. Biosolids may be transported via rail from this spur in the future.

- f. **How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.**

For any particular land application site the number of trips per day depends on the size of the trucks servicing the treatment works and the amount of material directed to the site. Seven truck trips per week are projected in 2012, growing to about 11 truck trips per week in 2030; on average then about

1.5 vehicle trips per day which might be directed over the course of a season to one or more land application sites.

For a compost facility it is reasonable to assume that all biosolids truck trips would be to the facility in the absence of any land application program. In addition, an undetermined number of truck trips would be needed for the delivery of bulking agent or other feedstocks, plus daily employee commutes. Also, outgoing truck trips related to distribution of the finished compost product would at least equal the number of truck trips bringing biosolids into the composting facility.

g. Proposed measures to reduce or control transportation impacts, if any:

It is good common practice to select major roads and truck routes, and avoid transportation through neighborhood areas as much as possible. Larger trucks generally mean fewer trips and reduce the cost per unit of weight or volume.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

This project results from an increased need for public service (i.e. water reclamation). Land application sites generally do not increase the need for public services.

A new compost facility would create some incremental increase in need for police and fire protection.

b. Proposed measures to reduce or control direct impacts on public services, if any.

This proposal is part of a lengthy comprehensive public planning process intended to achieve goals.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

Unknown at this time. Service level utilities are generally not available or required at land application sites.

c. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

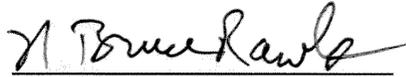
None are proposed or required for land application sites.

A compost facility would need electric and water from some source. A sanitary connection may or may not be needed for facility wastewater. A sanitary system would likely be required for employees.

C. SIGNATURE

I, the undersigned, swear under the penalty of perjury that the above responses are made truthfully and to the best of my knowledge. I also understand that, should there be any willful misrepresentation or willful lack of full disclosure on my part, the Agency may withdraw any Determination of Non-Significance that it might issue in reliance upon this checklist.

Proponent: Spokane County Public Works Department, Division of Utilities
1026 West Broadway Avenue
Spokane, WA 99260-0430
(509) 477-3604



N. Bruce Rawls, P.E.
Utilities Director

April 6, 2008
Date

FOR STAFF USE ONLY

Staff Member(s) Reviewing Checklist:


K. David Moss, P.E.
Water Reclamation Manager

Based on this staff review of the environmental checklist and other pertinent information, the staff:

- Concludes that there are no probable significant adverse impacts and recommends a Determination of Non-Significance.
- Concludes that probable significant adverse environmental impacts do exist for the current proposal and recommends a Mitigated Determination of Non-Significance with conditions.
- Concludes that there are probable significant adverse environmental impacts and recommends a Determination of Significance.