



Environmental Health Services

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## **SUBDIVISION ENGINEERING REPORT**

THE FOLLOWING INFORMATION SHALL BE SUBMITTED TO SOUTHWEST DISTRICT HEALTH FOR RELEASE OF SANITARY RESTRICTIONS UNDER IDAHO CODE TITLE 50, CHAPTER 13, FOR THE USE OF SUBSURFACE SEWAGE DISPOSAL SYSTEMS UNDER IDAHO CODE TITLE 1, CHAPTER 3:

### **GENERAL**

Southwest District Health (SWDH) requires pre-development meetings for subdivisions and planned unit developments prior to application being submitted to this office. SWDH shall be provided at least 48-hours notification to observe all test holes. A SWDH representative must be on site during the initial site evaluation and test hole excavation. Engineers assume responsibility for properly designing drainfield system locations predicated upon soil analysis and flow use requirements.

SWDH requires at least ten (10) working days for review of a Subdivision Engineering Report. Engineering reports are to be submitted and certified by an Idaho licensed professional engineer (Idaho Code 54-1202(C)). Engineering reports are required to be complete and concise and each item must be addressed. In order to expedite the approval process, SWDH recommends the engineer of record conduct careful pre-planning measures to properly and functionally satisfy the requirements outlined in this document. Any aspect of the design of the proposed development which, in the opinion of SWDH, is likely to cause serious public health problems or degradation of the environmental quality, shall be cause for the Health Authority to declare that sanitary restrictions have not been satisfied under Idaho Code, Title 50, Chapter 13, Section 1326.

### **ITEM**

1. Application: After the pre-development meeting, complete the Subdivision Application and submit payment of application fee (\$250.00) prior to site work or Nutrient Pathogen evaluation being conducted.

2. **Lot Fees:** The fee for administration of sanitary restrictions for each lot is due and payable at the time the Subdivision Engineering Report is submitted. SWDH will not review the Subdivision Engineering Report until the fee(s) are paid. The current fee structure is 300.00 for every developable lot (not including common lots or existing dwellings), within the subdivision. At this time the application will be updated to reflect the correct number of lots. Place engineer's stamp with Idaho license number on Subdivision Engineering Report. Engineers must be registered and licensed with the State of Idaho under I.C. Title 54, Chapter 12.
3. **Preliminary Plat Map:** This will include a scaled drawing, map, or plat, of a subdivision. An eighteen by twenty-seven inch (18" x 27"), and an eight and one-half by eleven inch (8 ½" x 11") map of the proposed subdivision shall be provided.

#### **INFORMATIONAL PLAT MAP**

The informational plat map must also include an eighteen by twenty-seven inch (18" x 27"), and an eight and one-half by eleven inch (8 ½" x 11") map of the proposed subdivision.

4. Topographic map with five (5)-foot contours.
5. Show proposed lot lines and dimensions, and all existing structures within the proposed development.
6. Show all easements and proposed encroachments. Whenever the sewage source (residence, commercial building, etc.) and the drainfield system are to be installed on opposite sides of a right-of-way (gas pipeline, underground power line, irrigation canal, road, etc.), the users of the right-of-way must be notified, and encroachment approvals submitted.
7. Show irrigation lines and utility right-of-way(s). If underground irrigation lines or other pipelines and utilities are present, indicate the locations on the plat map.
8. Show any lots/parcels, or any portion thereof, that may be within a floodway. (In this context, a floodway is the channel of a watercourse and the adjacent land areas where erosional characteristics may exist that indicate an area where inundation of a subsurface sewage disposal system could occur.) Show all drainage and run-off areas that may pose a threat to the functionality of the subsurface sewage disposal system. Color-code the floodway areas on the plat. The Engineering Report must conform to local flood plain planning and zoning requirements.
9. Show the proposed location of wells and septic systems marked on the map. In order to do this properly the applicant must consider showing the following information on the associated well and septic system map:

- a. Provide the following for each lot in the subdivision. Provide these specifications on 8 ½" x 11" sheets for each lot. The information shall be provided to enable the installer to know where drainfield systems are not allowed. At a minimum, the specification sheets are to include the following:
    - i. Subdivision name, block and lot, parcel size, etc.
    - ii. Include a reduced portion of the subdivision engineering plat. This copy of the plat shall show the lot being discussed, and show the test hole location (also reference item #13 below).
    - iii. Provide dimensions and setback requirements where drainfields are not allowed.
    - iv. If additional space is needed, use an additional 8 ½" x 11" sheet. Each sheet must state the subdivision name, block and lot, parcel, etc., and inclusive pages for each lot's set of specification sheets (e.g., page 2 of 2 pages).
  - b. SWDH may require additional test holes prior to permit issuance. Test holes will be conducted at the proposed drainfield location as indicated on the plot plan submitted during the application process.
  - c. SWDH may require site specific locations or zones for wells and/or drainfields under the following conditions:
    - i. Small lots (i.e., lots smaller than two acres).
    - ii. Specific well and/or drainfield placement requirements as specified in a Nutrient Pathogen study.
    - iii. Site specific groundwater monitoring conducted to establish normal and seasonal high groundwater elevations. SWDH may require additional groundwater monitoring if applicant's desired drainfield site is not located at the previously monitored location (also reference item #24 below).
    - iv. Amplified setback requirements (i.e., intermittent or permanent bodies of water requiring horizontal separation that greatly limits drainfield location(s)).
10. Show all existing wells on and within 100 feet of the proposed development.

11. Show all existing septic tanks and drainfields on and within 100 feet of the proposed development. Septic tanks are to be located 50 feet or more from private wells, and 100 feet or more from community wells. Septic drainfields must be located 100 feet or more from private or public wells.
12. Show all intermittent or permanent surface water sources (i.e., rivers, streams, lakes, ponds, drains, etc.) within 300 feet of the proposed development.
13. Show all test hole locations.
14. Show all temporary surface water sources (i.e., irrigation ditches, canals, etc.) within 50 feet of the proposed development.
15. Show all spring discharges within 300 feet of the proposed development.
16. Show storm water run-on and run-off. Show drainage and run-off direction on streets and roads and any other drainage features on the plat map. If storm water will be conveyed to the subsurface via piping systems that meet the Idaho Department of Water Resources (IDWR) definition of a Class V Injection Well (I.C. Title 42, Chapter 39), then the seepage beds and associated best management practices must be approved by IDWR. In addition, show underground seepage tunnels, tiles, and irrigation lines.
17. Show rock outcrops, down slope cuts and/or scarp (areas of 100% slope or 45°). Whenever a steep slope exists (to include manmade cuts and scarps that will be constructed during the development of each lot), that could allow sewage seepage, or could cause run-off damage, an engineered setback from this feature must be designated and platted and included in the Subdivision Engineering Report.
18. Show ground slope:
  - a. Whenever a primary or replacement drainfield set-aside area includes a slope of greater than twenty percent (20%), the engineer must plat precisely on the topographical map where the drainfield(s) could be placed. Appropriate steep slope systems (20-45%) will be required for each impacted lot.
  - b. Color-code all areas in the proposed development which consist of natural slopes greater than 20%. Different colors should be used to differentiate between slopes of 20-45%, slopes between 46-100%, and areas over 100% slope or (45°).
19. Please provide SWDH an 8 ½” by 11” paper copy of the final plat when submitting mylar for final SWDH approval. This is to ensure that the mylar being signed by SWDH matches the approved engineering report. Failure to submit may result in mylar signature delay by SWDH.

### **TEST HOLES**

20. Submit a soil profile report and/or analysis showing a depth of at least ten feet (10'), or at least six feet (6'), below the bottom of the proposed absorption systems for each lot proposed. Sufficient test holes shall be dug in each subdivision to portray adequately the character of the soil, normal and seasonal groundwater levels, and depths to bedrock.
21. Include soil profile logs as part of the Subdivision Engineering Report. The information will be utilized to show that each lot has suitable soils for the treatment and disposal of effluent for each lot for the release of Sanitary Restrictions. Utilize U.S. Department of Agriculture soil classifications specified in the Technical Guidance Manual (TGM). If necessary, and to verify test hole findings, when soil suitability appears questionable, the engineer shall conduct percolation tests, sieve analysis (with hydrometer when appropriate), or other method of analysis to verify soil acceptability.
22. Please include an NRCS soil map. The soil maps can be found at the following link: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.
23. Please include the NRCS soil descriptions. The soil descriptions can be found at the following link: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.
24. Conduct site specific groundwater monitoring to establish normal and seasonal high groundwater elevations. SWDH may require additional groundwater monitoring if applicant's desired drainfield site is not located at the above said monitored location.
25. State the type of system proposed for each lot.
26. Show that there is adequate approved area for primary and replacement systems.

### **COMMUNITY OR CENTRAL SUBSURFACE SEWAGE DISPOSAL SYSTEM**

27. State type of System: A Central sewage disposal system (i.e., more than two (2) connections under separate ownership, but less than 2,500 gallons flow per day). A Large Soil Absorption System (LSAS) is a subsurface sewage disposal system designed to receive 2,500 gallons or more wastewater per day, or where the wastewater flow from the entire project exceeds 2,500 gallons/day, but is separated into separate absorption modules.
  - a. Submit a subsurface sewage disposal application to SWDH. State the type of system being proposed. Provide SWDH opportunity to conduct a site evaluation. Provide soil and groundwater data to SWDH to determine site suitability. Provide the nature and quantity of blackwaste and wastewater the system is to receive, including the basis for that estimate.

- b. Submit system plans to the Idaho Department of Environmental Quality (IDEQ) and SWDH for review and approval.
  - c. LSAS drainfields may be required to be 300' from a domestic water supply well. If utilizing an LSAS, please provide the correct LSAS/well buffer zone around the LSAS.
28. Provide a plan approval letter from the IDEQ. Provide SWDH with one (1) copy of the approved plans, and obtain a subsurface sewage disposal permit from SWDH.
29. Submit operations and maintenance papers to SWDH and IDEQ. Provide a copy of as-built plans to SWDH and IDEQ upon the subsurface sewage disposal system installation.

**WELLS (individual)**

30. Verify that each lot meets the recommended setback standards for individual water supplies.
31. Provide a statement of the availability and sources of water to meet demands of the subdivision.

**PUBLIC WATER SYSTEMS (community and non-community)**

32. Submit an approval letter from IDEQ stating the water supply is approved and recommends lifting sanitary restrictions.
33. Provide a letter from the entity providing water to the development stating that they will service the development.
34. Provide any additional correspondence relating to the subdivision and the public water system. In addition, please show all public water distribution lines.

**OTHER ITEMS AS NEEDED:**

35. A Nutrient Pathogen study may be required on platted subdivisions in areas of concern. This requirement may be applied by IDEQ or SWDH.
- a. SWDH will not require a Nutrient Pathogen study for subdivisions where all buildable lots meet or exceed two (2) acres with nitrogen reducing systems discharging less than 16mg/l in total nitrogen, three (3) acres with nitrogen reducing systems discharging less than 27mg/l in total nitrogen, or for subdivisions where all buildable lots meet or exceed five (5) acres in size.

36. Submit a statement that safety hazards (i.e., abandoned mine shafts, chemicals, nearby landfills, etc.) have been corrected or are not present.
37. Please provide a signed copy with this submittal of the Findings of Facts, Conclusions of Law and Order (FCO's), from the appropriate county. It is to be noted that certain county ordinances may require additional information beyond the scope of this report.
38. The correct Sanitary Restriction Language (provided in this packet), must be utilized on the plat for signature.
39. Applicable plat notes must be on the plat and the plat shall make reference to restrictions on file with the county recorder as set by the health authority?

**Subdivision Name** \_\_\_\_\_ **Date** \_\_\_\_\_

**Checklist** – This checklist serves as a guide for the items needed for approval. As items are completed, check them on this list. If an item does not apply, check the NA box and include a short note as to why it does not apply in your submission referencing the number on the checklist.

	<b>Item</b>	<b>YES</b>	<b>NA</b>	<b>For HD use</b>
<b>1</b>	<b>Application</b> - Complete	<input type="checkbox"/>	<input type="checkbox"/>	
<b>2</b>	<b>Fees Paid</b>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>3</b>	<b>Preliminary Plat Map</b>	<input type="checkbox"/>	<input type="checkbox"/>	
	<b>Informational Plat Map</b>			
<b>4</b>	Topographic - showing 5 ft. contours	<input type="checkbox"/>	<input type="checkbox"/>	
<b>5</b>	Proposed lot lines shown	<input type="checkbox"/>	<input type="checkbox"/>	
<b>6</b>	All easements and proposed encroachments shown	<input type="checkbox"/>	<input type="checkbox"/>	
<b>7</b>	All underground pipelines or utilities	<input type="checkbox"/>	<input type="checkbox"/>	
<b>8</b>	Drainage or run-off areas, flood ways/plain, or problem drainage areas	<input type="checkbox"/>	<input type="checkbox"/>	
<b>9</b>	Proposed location of wells and septic systems marked on map	<input type="checkbox"/>	<input type="checkbox"/>	
<b>10</b>	Existing wells on and within 100 feet of the development shown	<input type="checkbox"/>	<input type="checkbox"/>	
<b>11</b>	Existing drainfields on and within 100 feet of the development shown	<input type="checkbox"/>	<input type="checkbox"/>	
<b>12</b>	Surface water, streams, lakes, ponds within 300 ft. of development shown	<input type="checkbox"/>	<input type="checkbox"/>	
<b>13</b>	Test hole locations shown	<input type="checkbox"/>	<input type="checkbox"/>	
<b>14</b>	Ditches and canals within 50 ft. of development shown	<input type="checkbox"/>	<input type="checkbox"/>	
<b>15</b>	Spring discharges shown	<input type="checkbox"/>	<input type="checkbox"/>	
<b>16</b>	Locations of any injection wells, underground seepage tunnels, tiles, irrigation lines, or similar features on the property (check with IDWR and canal companies)	<input type="checkbox"/>	<input type="checkbox"/>	
<b>17</b>	Rock outcrops and scarps shown	<input type="checkbox"/>	<input type="checkbox"/>	
<b>18</b>	Areas exceeding 20% slope color coded (other slopes may be specified)	<input type="checkbox"/>	<input type="checkbox"/>	
<b>19</b>	Copy of final mylar plat	<input type="checkbox"/>	<input type="checkbox"/>	
	<b>Test Holes</b>			
<b>20</b>	Depth logs and soil profiles	<input type="checkbox"/>	<input type="checkbox"/>	
<b>21</b>	Soil types recorded	<input type="checkbox"/>	<input type="checkbox"/>	
<b>22</b>	NRCS soil map included	<input type="checkbox"/>	<input type="checkbox"/>	
<b>23</b>	NRCS soil descriptions included	<input type="checkbox"/>	<input type="checkbox"/>	
<b>24</b>	Determine the level and duration of the normal high ground water.	<input type="checkbox"/>	<input type="checkbox"/>	
	<b>Subsurface Sewage Disposal Systems (individual)</b>			
<b>25</b>	Type of systems proposed for each lot	<input type="checkbox"/>	<input type="checkbox"/>	
<b>26</b>	Adequate approved area for primary and replacement systems	<input type="checkbox"/>	<input type="checkbox"/>	
	<b>Community or Central Subsurface Sewage Disposal System</b>			
<b>27</b>	State type of system	<input type="checkbox"/>	<input type="checkbox"/>	
<b>28</b>	Provide the DEQ letter of approval of the engineered design	<input type="checkbox"/>	<input type="checkbox"/>	
<b>29</b>	Provide a letter of a contractual agreement with the responsible management entity	<input type="checkbox"/>	<input type="checkbox"/>	
	<b>Wells (individual)</b>			
<b>30</b>	Verify that each lot has a well location that meets the recommended setback	<input type="checkbox"/>	<input type="checkbox"/>	



	<b>Item</b>	YES	NA	For HD use
	standards for wells			
<b>31</b>	Provide a statement and documentation of the availability and source(s) of water to meet the demands of the parcels in the development.	<input type="checkbox"/>	<input type="checkbox"/>	
	<b>Public Water Systems (community and non-community)</b>			
<b>32</b>	Approval of the system by the Health District or provide a letter of approval of the engineered design by DEQ	<input type="checkbox"/>	<input type="checkbox"/>	
<b>33</b>	Provide a letter from the entity providing water to the development stating that they will service the development	<input type="checkbox"/>	<input type="checkbox"/>	
<b>34</b>	All correspondence relating to the subdivision	<input type="checkbox"/>	<input type="checkbox"/>	
	<b>Other Items As Needed</b>			
<b>35</b>	Nutrient Pathogen study	<input type="checkbox"/>	<input type="checkbox"/>	
<b>36</b>	Safety hazards	<input type="checkbox"/>	<input type="checkbox"/>	
<b>37</b>	Findings of Fact, Conclusions of Law and Order (FCO's)	<input type="checkbox"/>	<input type="checkbox"/>	
	<b>Final Plat</b>			
<b>38</b>	Correct health certificate with sanitary restriction wording	<input type="checkbox"/>	<input type="checkbox"/>	
<b>39</b>	Place any applicable plat notes on the plat	<input type="checkbox"/>	<input type="checkbox"/>	

Attached to this check-list is the completed application report for the above named subdivision.

Developer Signature: \_\_\_\_\_ Date \_\_\_\_\_

and/or

Engineer Signature \_\_\_\_\_ Date \_\_\_\_\_

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