

TUB RUN - EAST TIMBER UNITS

Best Management Practices Evaluation

Veg A. Ground-based Skidding and Harvesting

(Reference BMPs Veg-1, Veg-2, Veg-3, Veg-4, Veg-6, Veg-7, Fac-6, Road-5, and Road-10)

v3.2 December 2018

Header (3 pages)

1. Type of review being performed. Select one: Implementation Effectiveness Both Implementation and Effectiveness Follow-up Implementation Follow-up Effectiveness Follow-up Implementation and Effectiveness		2. If current review is for an initial evaluation of effectiveness only, what was the date of the implementation review for this site? 3. If current review is a follow-up evaluation, what was the date of the most recent evaluation? 4. Date of current field evaluation:
5. If this is a follow-up evaluation, describe all of the corrective actions that were applied to protect or improve water quality since the initial evaluation:		
6. If this is a follow-up evaluation, describe all of the adaptive management actions that were applied to protect or improve water quality since the initial evaluation:		
7. Reviewers and Titles:		
8a. Region number:	9a. Proclaimed Forest or Grassland number and name:	10. District number and name:
8b. State:	9b. Administrative Forest or Grassland number and name:	
11a. Reason for monitoring. Select all that apply: National BMP Targets Land Management Plan Monitoring Project Review Quality Assurance Other (specify):		
11b. Was the project/site selected randomly from the pool developed using the National BMP Monitoring Program instructions that correspond to this form? Select one: a. Yes b. No If No, describe the procedures used to select the project/site:		

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<p>11c. Will the project/site be evaluated using the procedures described in the National BMP Monitoring Program instructions that correspond to this form (e.g., evaluating the appropriate areas or transects, etc.)? Select one:</p> <p>a. Yes b. No</p> <p>If No, describe the procedures that will be used to evaluate the project/site or how they will differ from the procedures in the instructions:</p>					
<p>12. 6th level HUC number and name for the subwatershed this harvest or TSI unit is in:</p>					
<p>13. Is any part of the harvest or TSI unit being evaluated located within a municipal supply watershed? Select one: Yes No</p>					
<p>14a. Location UTM Zone: UTM Datum:</p>	<p>14b. Location. Easting:</p>	<p>14c. Location. Northing:</p>	<p>15a. Location. Latitude:</p>	<p>15b. Location. Longitude:</p>	<p>15c. Location. Lat/Long Datum:</p>
<p>16. Wet weather conditions during the field evaluation and the 24 hours before the evaluation. Select all that apply:</p> <p style="text-align: center;"> <input type="checkbox"/> No wet weather <input type="checkbox"/> Rain <input type="checkbox"/> Snow <input type="checkbox"/> Snowpack on the ground <input type="checkbox"/> Melting snow <input type="checkbox"/> Hail/sleet <input type="checkbox"/> Freezing rain/freezing fog <input type="checkbox"/> Other (specify): <input type="checkbox"/> Unknown </p>					
<p>17. Name of timber sale or project:</p>			<p>18. Harvest, TSI, or project unit number:</p>		
<p>19. Describe the treatment prescription for the harvest or TSI unit:</p>					
<p>20. Describe the treatment prescription within the AMZ associated with the harvest or TSI unit, or the treatment prescription for the area adjacent to the waterbody if the waterbody has no designated AMZ:</p>					
<p>21. Date treatments began:</p>			<p>22. Date treatments ended:</p>		
<p>23. AMZ design width associated with the harvest or TSI unit (ft or m; specify unit):</p>					
<p>24. Name of waterbody adjacent to the waterbody transect:</p>					

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25. Type of waterbody adjacent to the waterbody transect. Select one: Ephemeral stream Intermittent stream Perennial stream/river Pond Lake Wetland/wet meadow Estuary Other (specify):
26. Date contract requirements for the landing being evaluated were accepted:
27. Is the landing located within an AMZ? Select one: Yes No Waterbody has no designated AMZ
28. Size of landing (ac, ft ² , ha, m ² ; specify unit):
29. Distance from the landing to the nearest waterbody that is located in the same watershed as the landing (ft or m; specify unit):
30. Dominant slope between the landing and the nearest waterbody (percent):

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Implementation (4 pages)

31. What was the primary planning document used to specify the BMPs to be implemented to protect water, aquatic, and riparian resources for this project? Select one:

- a. No planning document containing BMP guidance was used (go to question 33)
- b. Environmental Impact Statement (EIS) (go to question 32)
- c. Environmental Assessment (EA) (go to question 32)
- d. Categorical Exclusion (CE) (go to question 32)
- e. No project-level NEPA, but BMP guidance was provided in other documents (go to question 32)

32. Indicate if provisions to protect water, aquatic, and riparian resources in the list below from the decision document or other BMP guidance documents were included in the project contract or project plan. Select one response in each line. Select "Not applicable" for provisions that were not included in the decision document or other BMP guidance documents.

- | | | | |
|---|-----|----|----------------|
| a. Erosion control in the AMZ or near waterbody | Yes | No | Not applicable |
| b. Mechanized equipment use in the AMZ or near waterbody | Yes | No | Not applicable |
| c. Vegetation treatment in the AMZ or near waterbody | Yes | No | Not applicable |
| d. Slash treatment in the AMZ or near waterbody | Yes | No | Not applicable |
| e. Debris control in waterbody | Yes | No | Not applicable |
| f. Location of the landing | Yes | No | Not applicable |
| g. Size of the landing | Yes | No | Not applicable |
| h. Erosion control for the landing | Yes | No | Not applicable |
| i. Timing of landing operations | Yes | No | Not applicable |
| j. Areal extent of harvesting or TSI operations | Yes | No | Not applicable |
| k. Timing of harvest or TSI operations | Yes | No | Not applicable |
| l. Areal extent of the transportation system | Yes | No | Not applicable |
| m. Location of skid roads, skid trails, or other temporary roads | Yes | No | Not applicable |
| n. Erosion control on skid roads, skid trails, or other temporary roads | Yes | No | Not applicable |
| o. Waterbody crossings on skid roads, skid trails, or other temporary roads | Yes | No | Not applicable |
| p. Other (specify): | Yes | No | Not applicable |

33. Indicate if provisions to protect water, aquatic, and riparian resources in the list below that were included in the project contract or project plan were implemented fully. Select one response in each line. If the provision exists in the project contract or plan and it was implemented fully, select "Yes". If the provision exists in the project contract or plan but it was not implemented fully, select "No". If the provision does not exist in the project contract or plan, select "Not applicable".

- | | | | |
|---|-----|----|----------------|
| a. Erosion control in the AMZ or near waterbody | Yes | No | Not applicable |
| b. Mechanized equipment use in the AMZ or near waterbody | Yes | No | Not applicable |
| c. Vegetation treatment in the AMZ or near waterbody | Yes | No | Not applicable |
| d. Slash treatment in the AMZ or near waterbody | Yes | No | Not applicable |
| e. Debris control in waterbody | Yes | No | Not applicable |
| f. Location of the landing | Yes | No | Not applicable |
| g. Size of the landing | Yes | No | Not applicable |
| h. Erosion control for the landing | Yes | No | Not applicable |
| i. Timing of landing operations | Yes | No | Not applicable |
| j. Areal extent of harvesting or TSI operations | Yes | No | Not applicable |
| k. Timing of harvest or TSI operations | Yes | No | Not applicable |
| l. Areal extent of the transportation system | Yes | No | Not applicable |
| m. Location of skid roads, skid trails, or other temporary roads | Yes | No | Not applicable |
| n. Erosion control on skid roads, skid trails, or other temporary roads | Yes | No | Not applicable |
| o. Waterbody crossings on skid roads, skid trails, or other temporary roads | Yes | No | Not applicable |
| p. Other provisions specified in question 32.p | Yes | No | Not applicable |
| q. Other (specify): | Yes | No | Not applicable |

For any provisions you answered "No", briefly explain how implementation is deficient:

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<p>34. Was the AMZ shown on the Sale Area Map? Select one:</p> <ul style="list-style-type: none">a. Not applicable, the waterbody does not have a designated AMZ width (go to question 39)b. Yes (go to question 35)c. No (go to question 35)
<p>35. Was the AMZ marked on the ground? Select one:</p> <ul style="list-style-type: none">a. Not applicable, the contract or plan did not require the AMZ to be marked on the ground (go to question 39)b. Yes (go to question 36)c. No (go to question 39)
<p>36. Does the minimum field-measured AMZ width meet the Forest Service-defined AMZ width along the entire length of the AMZ transect? Select one:</p> <ul style="list-style-type: none">a. Yes (go to question 39)b. No (go to question 37)
<p>37. What percentage of the AMZ width measurements did not meet the Forest Service-defined width requirement? Select one:</p> <ul style="list-style-type: none">a. 0 to 20 percentb. >20 to 40 percentc. >40 to 60 percentd. >60 to 80 percente. >80 to 100 percent
<p>38. What was the narrowest width that did not meet the AMZ width requirement? (ft or m; specify unit):</p>
<p>39. Where were ground-based harvesting or TSI areas identified and delineated? Select all that apply:</p> <ul style="list-style-type: none">a. Sale Area Maps/project mapsb. On the groundc. Neither on maps nor on the ground
<p>40. Was supplemental erosion control applied to the landing being evaluated? Select one:</p> <ul style="list-style-type: none">a. Needed and appliedb. Needed but not appliedc. Not needed <p>If applied, what supplemental erosion control was used?</p>
<p>41. Was supplemental erosion control applied to the skid road, skid trail, or other temporary road being evaluated? Select one:</p> <ul style="list-style-type: none">a. Needed and appliedb. Needed but not appliedc. Not needed <p>If applied, what supplemental erosion control was used?</p>
<p>42. Were project inspections and/or contract administration during project implementation performed at critical times for addressing water quality issues? Select one:</p> <ul style="list-style-type: none">a. No inspections were performedb. Not applicable, work was conducted to avoid critical timesc. Yesd. No
<p>43. If problems occurred during project implementation that affected or potentially may have affected water, aquatic, or riparian resources, were corrective actions taken to reduce or eliminate the problems? Select one:</p> <ul style="list-style-type: none">a. No problems occurred so no corrective actions were neededb. Corrective actions were needed but not takenc. Corrective actions were needed and implementedd. Unknown, insufficient documentation and information exists to make the determination

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44. Were chemical or fuel spills or leaks that occurred during ground-based harvesting handled/treated according to the contingency and emergency response plan? Select one:
- a. The Forest or Grassland has no contingency and emergency response plan
 - b. Not applicable, no spills or leaks occurred during ground-based mechanical harvesting or TSI operations
 - c. Yes, reported spills or leaks were handled/treated according to the contingency and emergency response plan
 - d. No, reported spills or leaks were not handled/treated according to the contingency and emergency response plan

45. Are any corrective actions needed to improve implementation? Select one:

- a. Yes ([go to question 46](#))
- b. No ([go to question 47](#))

46. Provide information about corrective actions needed to improve implementation, and reference the question number to which each correction applies.

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47. Are any adaptive management actions needed to improve implementation? Select one:

- a. Yes (go to question 48)
- b. No (go to question 49 if effectiveness is to be evaluated at this time; otherwise go to General Comments)

48. Provide information about adaptive management actions needed to improve implementation, and reference the question number to which each action applies. Go to question 49 if effectiveness is to be evaluated at this time; otherwise go to General Comments after answering this question.

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Effectiveness (8 pages)

49. Is the waterbody transect that is being evaluated adjacent to a wetland or wet meadow? Select one: a. Yes (go to question 50) b. No (go to question 51)
50. Is there evidence of damage to the wetland or wet meadow caused by the ground-based harvesting or TSI activities being evaluated? Select one: a. No evidence of damage (go to question 53) b. ≤ 10 percent of the wetland or wet meadow area damaged (go to question 53) c. > 10 to 25 percent of the wetland or wet meadow area damaged (go to question 52) d. > 25 percent of the wetland or wet meadow area damaged (go to question 52)
51. Is there evidence of bank damage caused by the ground-based harvesting or TSI activities being evaluated? Select one: a. No bank damage evident (go to question 53) b. ≤ 10 percent of the bank length is damaged (go to question 53) c. > 10 to 25 percent of the bank length is damaged (go to question 52) d. > 25 percent of the bank length is damaged (go to question 52)
52. What are the causes of the observed damage? Select all that apply: a. Poor skidding techniques b. Skidding near or along the banks c. Inadequate use of or poor direction of felling d. Winching logs from the waterbody or along the banks e. Removing other logging debris from the waterbody or banks f. Poorly located skid roads/trails or other temporary roads g. Inadequate care taken during site preparation treatments h. Other mechanical disturbances i. Lack of waterbody crossing structure j. Poorly designed, installed, or maintained waterbody crossing structure k. Poor timing of operations l. Other (specify): m. Unknown
53. Excluding bank damage or wetland/wet meadow damage, what evidence of erosion or sedimentation exists in the AMZ that is attributable to the ground-based harvesting or TSI activities being evaluated? Select one; when multiple occurrences would yield different answers, select the most severe occurrence, with severity increasing from b to c. a. No evidence of erosion or sedimentation (go to question 59) b. Evidence of erosion or sedimentation, but not reaching the waterbody (go to question 55) c. Evidence of sediment transport to or deposition in the waterbody, or evidence of changes to waterbody morphology (go to question 54)
54. How many total places do you observe erosion or sedimentation delivered to/present in the waterbody and changes to waterbody morphology? Select one; after answering go to question 56 : a. 1 or 2 b. 3 or 4 c. 5 or more
55. What is the shortest distance between the evidence and the waterbody? Select one: a. ≤10 feet b. >10 to 50 feet c. >50 to 100 feet d. >100 feet

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<p>56. For all of the occurrences of erosion and sedimentation observed in the area you identified in question 53, what is the evidence? Select all that apply:</p> <ul style="list-style-type: none">a. Traceable evidence to the waterbody, but not currently visible in the waterbodyb. Turbidity presentc. Evidence of localized sediment deposition in the waterbodyd. Changes to substrate compositione. Changes to waterbody geometry (e.g., width, depth, meander patterns, bank or bed slope, etc.)f. Bank instabilityg. Bank trampling or compactionh. Vegetation damage or bare groundi. Sheet erosionj. Rill erosionk. Gully erosionl. Headcuttingm. Slumping/slipsn. Mass wastingo. Sediment plumes or accumulationsp. Ruttingq. Water quality monitoring resultsr. Other (specify):
<p>57. What are the sources? Select all that apply:</p> <ul style="list-style-type: none">a. Log drag rutb. Skid road, skid trail, or other temporary roadc. System roadd. Landinge. Treated area, excluding roads, trails, or landingsf. Waterbody crossing and/or crossing approachg. Other (specify):
<p>58. What are the causes? Select all that apply:</p> <ul style="list-style-type: none">a. Poor location of trails or roadsb. Poor location of landingsc. Poor drainage control on trails or roadsd. Poor drainage control on landingse. Poor skidding, winching, or transporting techniquesf. Poor timing of operations (e.g., soil wetness, precipitation, etc.)g. Equipment use in AMZ or near the waterbodyh. Poorly designed, installed, or maintained waterbody crossing structurei. Mechanical additions (from construction, maintenance, blading, etc.)j. Compactionk. Other (specify): <p>l. Unknown</p>
<p>59. Is there evidence of erosion or sedimentation on or originating from the landing being evaluated? Select one; when multiple occurrences would yield different answers, select the most severe occurrence, with severity increasing from b to d.</p> <ul style="list-style-type: none">a. No evidence of erosion or sedimentation (go to question 67)b. Evidence of erosion or sedimentation outside an AMZ (go to question 61)c. Evidence of erosion or sedimentation within an AMZ, but not reaching a waterbody (go to question 61)d. Evidence of sediment transport to or deposition in a waterbody, or evidence of changes to waterbody morphology (go to question 60)
<p>60. How many total places do you observe erosion or sedimentation delivered to/present in a waterbody and changes to waterbody morphology? Select one; after answering go to question 62:</p> <ul style="list-style-type: none">a. 1 or 2b. 3 or 4c. 5 or more
<p>61. What is the shortest distance between the evidence and the waterbody? Select one:</p> <ul style="list-style-type: none">a. ≤10 feetb. >10 to 50 feetc. >50 to 100 feetd. >100 feet

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62. What type of waterbody has experienced morphological changes, or has received sediment inputs, or will receive inputs if sediment transport or erosion worsens? Select all that apply:

- a. Ephemeral stream
- b. Intermittent stream
- c. Perennial stream/river
- d. Pond
- e. Lake
- f. Wetland or wet meadow
- g. Estuary
- h. Other (specify):

63. What is the design width of the AMZ associated with the waterbody? (ft or m; specify units):

64. For all of the occurrences of erosion and sedimentation observed in the area you identified in question 59, what is the evidence? Select all that apply:

- a. Traceable evidence to the waterbody, but not currently visible in the waterbody
- b. Turbidity present
- c. Evidence of localized sediment deposition in the waterbody
- d. Changes to substrate composition
- e. Changes to waterbody geometry (e.g., width, depth, meander patterns, bank or bed slope, etc.)
- f. Bank instability
- g. Bank trampling or compaction
- h. Vegetation damage or bare ground
- i. Sheet erosion
- j. Rill erosion
- k. Gully erosion
- l. Headcutting
- m. Slumping/slips
- n. Mass wasting
- o. Sediment plumes or accumulations
- p. Rutting
- q. Water quality monitoring results
- r. Other (specify):

65. What are the sources? Select all that apply:

- a. Landing deck
- b. Landing fillslope
- c. Landing drainage outlet
- d. Skid road, skid trail, or other temporary road
- e. System road
- f. Other (specify):

66. What are the causes? Select all that apply:

- a. Poor erosion control around perimeter of landing
- b. No water control features installed
- c. Improper spacing of water control features
- d. Improper construction of water control features
- e. Improper or inadequate maintenance of water control features
- f. Poorly located landing
- g. Improper grade on landing
- h. Improper grade on connecting roads/trails
- i. Compaction
- j. Mechanical additions from landing construction
- k. Poor timing of operations
- l. Other (specify):

- m. Unknown

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<p>67. Excluding waterbody crossings and their approaches, what evidence of erosion or sedimentation exists on or originating from the connecting skid road, skid trail, or other temporary road being evaluated? Select one; when multiple occurrences would yield different answers, select the most severe occurrence, with severity increasing from b to d.</p> <ul style="list-style-type: none">a. No evidence of erosion or sedimentation (go to question 75)b. Evidence of erosion or sedimentation outside an AMZ (go to question 69)c. Evidence of erosion or sedimentation within an AMZ, but not reaching a waterbody (go to question 69)d. Evidence of sediment transport to or deposition in a waterbody, or changes to waterbody morphology (go to question 68)
<p>68. How many total places do you observe erosion or sedimentation delivered to/present in a waterbody and changes to waterbody morphology? Select one; after answering go to question 70:</p> <ul style="list-style-type: none">a. 1 or 2b. 3 or 4c. 5 or more
<p>69. What is the shortest distance between the evidence and the waterbody? Select one:</p> <ul style="list-style-type: none">a. ≤10 feetb. >10 to 50 feetc. >50 to 100 feetd. >100 feet
<p>70. What type of waterbody has experienced morphological changes, or has received sediment inputs, or will receive inputs if sediment transport or erosion worsens? Select all that apply:</p> <ul style="list-style-type: none">a. Ephemeral streamb. Intermittent streamc. Perennial stream/riverd. Ponde. Lakef. Wetland or wet meadowg. Estuaryh. Other (specify):
<p>71. What is the design width of the AMZ associated with the waterbody? (ft or m; specify units):</p>
<p>72. For all of the occurrences of erosion and sedimentation observed in the area you identified in question 67, what is the evidence? Select all that apply:</p> <ul style="list-style-type: none">a. Traceable evidence to the waterbody, but not currently visible in the waterbodyb. Turbidity presentc. Evidence of localized sediment deposition in the waterbodyd. Changes to substrate compositione. Changes to waterbody geometry (e.g., width, depth, meander patterns, bank or bed slope, etc.)f. Bank instabilityg. Bank trampling or compactionh. Vegetation damage or bare groundi. Sheet erosionj. Rill erosionk. Gully erosionl. Headcuttingm. Slumping/slipsn. Mass wastingo. Sediment plumes or accumulationsp. Ruttingq. Water quality monitoring resultsr. Other (specify):
<p>73. What are the sources? Select all that apply:</p> <ul style="list-style-type: none">a. Skid road/skid trailb. Other temporary roadc. System roadd. Landinge. Exposed soil not associated with roads or landingsf. Other (specify):

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74. What are the causes? Select all that apply:

- a. No water control features installed
- b. Improper spacing of water control features
- c. Improper construction of water control features
- d. Improper or inadequate maintenance of water control features
- e. Poor treatment prescription
- f. Poorly located skid roads/trails or temporary roads
- g. Improper grades on skid roads/trails or temporary roads
- h. Mechanical additions of sediment from road or trail construction
- i. Poor skidding or transport techniques
- j. Compaction
- k. Poor timing of operations
- l. Other (specify):

m. Unknown

75. At waterbody crossings and their approaches on the connecting skid roads, skid trails or temporary roads being evaluated, what evidence of erosion or sedimentation exists? Select one; when multiple occurrences would yield different answers, select the most severe occurrence, with severity increasing from b to d.

- a. Not applicable, no waterbody crossings present on connecting skid roads/trails or temporary roads ([go to question 79](#))
- b. No evidence of erosion or sedimentation ([go to question 79](#))
- c. Evidence of erosion or sedimentation, but no deposition in a waterbody ([go to question 76](#))
- d. Evidence of sediment transport to or deposition in a waterbody, or evidence of changes to waterbody morphology ([go to question 76](#))

76. For all of the crossings that your answer for question 75 is applicable, what types of waterbodies were crossed? Select all that apply:

- a. Ephemeral stream
- b. Intermittent stream
- c. Perennial stream/river
- d. Pond
- e. Lake
- f. Wetland or wet meadow
- g. Estuary
- h. Other (specify):

77. What types of waterbody crossing structures were employed? Select all that apply:

- a. Unhardened ford
- b. Hardened ford
- c. Culvert
- d. Bridge
- e. Low water crossing
- f. Mats
- g. Other (specify):

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78. For all of the occurrences of erosion and sedimentation observed in the area you identified in question 75, what is the evidence? Select all that apply:

- a. Traceable evidence to the waterbody, but not currently visible in the waterbody
- b. Turbidity present
- c. Evidence of localized sediment deposition in the waterbody
- d. Changes to substrate composition
- e. Changes to waterbody geometry (e.g., width, depth, meander patterns, bank or bed slope, etc.)
- f. Bank instability
- g. Bank trampling or compaction
- h. Vegetation damage or bare ground
- i. Sheet erosion
- j. Rill erosion
- k. Gully erosion
- l. Headcutting
- m. Slumping/slips
- n. Mass wasting
- o. Sediment plumes or accumulations
- p. Rutting
- q. Water quality monitoring results
- r. Other (specify):

79. What evidence of chemical or fuel spills or leaks or associated waste containers exists in the areas being evaluated? Select all that apply:

- a. No evidence of chemical or fuel spills, leaks, or waste containers
- b. Evidence of chemical or fuel spills or leaks outside an AMZ
- c. Evidence of chemical or fuel spills or leaks within an AMZ
- d. Evidence of chemical or fuel spills or leaks in a waterbody
- e. Evidence of chemical or fuel waste containers outside an AMZ
- f. Evidence of chemical or fuel waste containers within an AMZ
- g. Evidence of chemical or fuel waste containers in a waterbody

80. If inspections were not conducted at critical times during project implementation, did the lack of administration contribute to observed problems? Select one:

- a. Not applicable, inspections were conducted at critical times, or activities were conducted to avoid critical times
- b. Yes
- c. No

81. Are any corrective actions needed to improve effectiveness? Select one:

- a. Yes ([go to question 82](#))
- b. No ([go to question 83](#))

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82. Provide information about corrective actions needed to improve effectiveness, and reference the question number to which each correction applies.

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83. Are any adaptive management actions needed to improve effectiveness? Select one:

- a. Yes ([go to question 84](#))
- b. No ([go to General Comments](#))

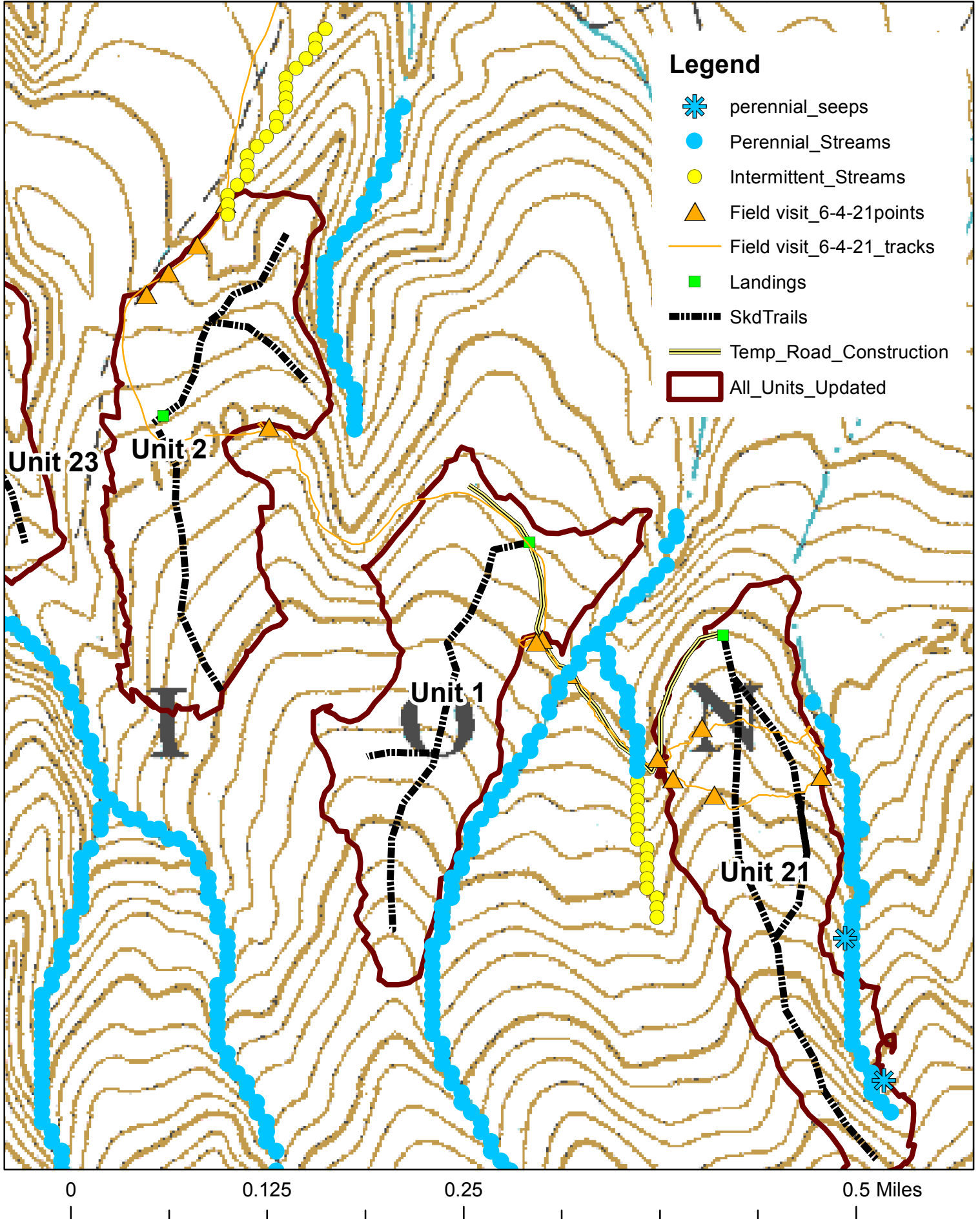
84. Provide information about adaptive management actions needed to improve effectiveness, and reference the question number to which each action applies. [Go to General Comments after answering this question.](#)

Best Management Practices Evaluation

General Comments

Tub Run East - BMP monitoring June 4, 2021

Units 1, 2, 21



Unit 2 - Intermittent stream not properly buffered. Sale area boundary did not incorporate 50ft buffer to protect head of draw.



Unit 2 – Admin Road not properly seeded, water barred or closed. Sediment flowing directly into the headwaters area of an intermittent stream.



Unit 1 – Temporary Road not properly seeded, water barred or closed. Berms not pulled back. Completely open for driving, sediment flowing off driving surface.



Unit 21 – Riparian Zone along steep hillside has not been properly buffered leading down to stream and road crossing immediately below at toe of slope. Mechanical equipment was obviously used in proximity to stream, where there should have been a no-equipment zone established as part of stream buffer.



Unit 21 – Eastern boundary of unit is painted, but failed to incorporate full stream buffer given steep side slopes. Boundary is marked near topographic break, rather than approximately 30ft beyond on the flatter terrain, which protects sediment from moving downslope to the perennial stream below.

