Field Survey for Meadows and Roads [1]

Forest: Eldorado National Forest	**District:** Pacific	**County:**

Observers Steve Markman, Hydrologist	**Date:** August 18,
	Time: 1215

Number and/or name of road or trail 14N39	**UTM** 10 S 0741905 4224108 Ø.1 r
Meadow reference number 14N39-1	

Characteristics of meadow

Is the feature a meadow? X **Yes** ___ **No** *(Describe what the feature actually is)*

Does the location of the meadow on-the-ground match the information in GIS? ___ Yes X No
(If the answer is no, please describe the difference).
Wet meadow areas on both sides of road for the first Ø.3 miles of the r
GIS does not show meadows for the first Ø.1 mile

Wetness of meadow *(Select the best answer at the time of the survey)*
___ **Very wet** (Standing or flowing surface water present in all or a large portion of feature).
X **Moderately wet** (Surface water in part of feature and/or ground surface wet in most of feature
___ **Slightly wet** (No surface water. Ground surface wet in part of feature).
___ **Mostly dry** (No surface water. Ground surface dry in most of feature).
___ **Dry** (No surface water. Ground surface dry in entire feature).

Predominate riparian/wetland vegetation:	**Predominant non-riparian/wetland vegetation:**
Corn lily, sedges, rushes	Lodge pole pine surrounds meado
Abundance and location: Throughout meadow areas.	Abundance and location: and is encroachin

Proximity and characteristics of motorized routes in the meadow

Does the road or trail enter the meadow? X Yes Approx. feet or miles Ø.3 miles ___ No
(Describe the location of the road or trail with respect to hydrologic features in the meadow.)
Road cuts through Ø.3 miles of wet meadows.

Does the road or trail parallel a portion of the meadow (within 100 ft. of the edge of the meadow)? ___ Yes X No
(Describe the distance that the road or trail parallels the meadow, and attach photos.)

Is there evidence of motorized use off of the road or trail and into the meadow? ___ Yes X No
(Describe the evidence, and attach photos.)

Are there stream channel crossings along the road in the meadow? X Yes ___ No
X Pipes/culverts ___ Bridge ___ Raw cr

Are there cross drain structures along the road or trail in the meadow? X Yes ___ No ___ Pipes/culverts
___ Rolling dip

[1] Use a separate form for each road or trail.

Field Survey for Meadows and Roads (page 2)

14N39-1 8-18-11 Steve Markman

Condition of meadow

Active erosion features (rills, gullies, headcuts) in meadow? ___ Yes X No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the ro

Old, healed erosional features in meadow? X Yes ___ No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the r
Old headcuts and rills at one location, mostly healed.

Hummocky surface in portions of the meadow? ___ Yes X No *(If yes, describe location and aerial extent in m*

If the road(s) or trail(s) goes through the meadow, is the road/trail noticeably affecting the movement of water through the me
X Yes ___ No (If yes, d*escribe the physical evidence).*
Water ponded in road at one location; water flowing over the top of the roa
lo

If the road) or trail parallels a portion of the meadow, is the road/trail noticeably affecting the movement of water into or out
meadow? ___ Yes ___ No *(If yes, describe the evidence).*
Not applicable. Road does not parallel the meadow

Is a road(s) or trail(s) contributing sediment into the meadow to the extent that it is noticeably affecting the size and/or functi
meadow? X Yes ___ No *(If yes, describe the physical evidence).*
Sediment from road can be traced into the meadow at several locations. Or
of portions of meadow next to road, with encroachment of lodgepole pine.

Other land disturbances within the meadow? X Yes ___ No
(If yes to the above, describe types and extent).
Past timber harvest surrounds meadow areas.

Stream flowing through the meadow? X Yes ___ No

Is stream eroding vertically (i.e. active downcutting)?	___ Yes	X No
Is stream eroding laterally (i.e. actively widening?)	___ Yes	X No
Does stream contain an active headcut(s)?	___ Yes	X No
Does stream contain old (healed) headcut(s)?	___ Yes	X No

Aquatic species (incidental sightings only – no survey to a specific protocol)

List aquatic species present, numbers of individuals, and life stage
None observed.

Findings with respect to Standard and Guideline (S&G) #100 of the SNFPA

___ **Yes.** S&G #100 is being met with regard to this road/trail and meadow.

X **No.** S&G #100 is NOT being met with regard to this road and meadow.

___ **I.** Inconclusive. Field evidence not sufficient to determine if S&G #100 is being met.

S&G 100: Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic feature
identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement corre
where necessary to restore connectivity.

Other Comments First 0.3 miles of road 14N39 are affecting the wetness of mea
areas on both sides of the road at several locations.

Field Survey for Meadows and Roads [1]

Forest: Eldorado National Forest	**District:** Pacific	**County:**

Observers Steve Markman, Hydrologist	**Date:** August 18, **Time:** 1300

Number and/or name of road or trail 14N39	**UTM** 0.5 miles from sta
Meadow reference number 14N39-2	10 S 0741644 4323806

Characteristics of meadow

Is the feature a meadow? X **Yes** ____ **No** *(Describe what the feature actually is)*

Does the location of the meadow on-the-ground match the information in GIS? X Yes ____ No
(If the answer is no, please describe the difference).

Wetness of meadow *(Select the best answer at the time of the survey)*

____ **Very wet** (Standing or flowing surface water present in all or a large portion of feature).
____ **Moderately wet** (Surface water in part of feature and/or ground surface wet in most of feature
X **Slightly wet** (No surface water. Ground surface wet in part of feature).
____ **Mostly dry** (No surface water. Ground surface dry in most of feature).
____ **Dry** (No surface water. Ground surface dry in entire feature).

Predominate riparian/wetland vegetation:	**Predominant non-riparian/wetland vegetation:**
Corn lily, alder	Fir trees surround meadow.
Abundance and location: Throughout meadow.	Abundance and location:

Proximity and characteristics of motorized routes in the meadow

Does the road or trail enter the meadow? ____ Yes Approx. feet or miles _____ X No
(Describe the location of the road or trail with respect to hydrologic features in the meadow.)

Does the road or trail parallel a portion of the meadow (within 100 ft. of the edge of the meadow)? X Yes ____ No
(Describe the distance that the road or trail parallels the meadow, and attach photos.)
Road parallels meadow for approx. 200 feet; road comes within 20 feet of a d
inc

Is there evidence of motorized use off of the road or trail and into the meadow? ____ Yes X No
(Describe the evidence, and attach photos.)

Are there stream channel crossings along the road in the meadow? ____ Yes X No
____ Pipes/culverts ____ Bridge ____ Raw cr

Are there cross drain structures along the road or trail in the meadow? ____ Yes X No ____ Pipes/culverts
____ Rolling dip

[1] Use a separate form for each road or trail.

Field Survey for Meadows and Roads (page 2)

14N39 - 2 8-18-11 Steve Merkman

Condition of meadow

Active erosion features (rills, gullies, headcuts) in meadow? ___ Yes X No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the ro

Old, healed erosional features in meadow? ___ Yes X No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the r

Hummocky surface in portions of the meadow? ___ Yes X No *(If yes, describe location and aerial extent in m*

If the road(s) or trail(s) goes through the meadow, is the road/trail noticeably affecting the movement of water through the me
___ Yes ___ No (If yes, d*escribe the physical evidence).*

Not applicable.

If the road) or trail parallels a portion of the meadow, is the road/trail noticeably affecting the movement of water into or out
meadow? ___ Yes X No *(If yes, describe the evidence).*

Is a road(s) or trail(s) contributing sediment into the meadow to the extent that it is noticeably affecting the size and/or functi
meadow? ___ Yes X No *(If yes, describe the physical evidence).*
Rills in 100 ft. long segment of road are feeding sediment into meadow at one location, bu
and wetness of meadow is only slightly

Other land disturbances within the meadow? ___ Yes X No along the eastern edge of the
(If yes to the above, describe types and extent).

Stream flowing through the meadow? ___ Yes X No

Is stream eroding vertically (i.e. active downcutting)?	___ Yes	___ No	No stream.
Is stream eroding laterally (i.e. actively widening?)	___ Yes	___ No	
Does stream contain an active headcut(s)?	___ Yes	___ No	
Does stream contain old (healed) headcut(s)?	___ Yes	___ No	

Aquatic species (incidental sightings only – no survey to a specific protocol)

List aquatic species present, numbers of individuals, and life stage

None observed.

Findings with respect to Standard and Guideline (S&G) #100 of the SNFPA

X **Yes.** S&G #100 is being met with regard to this road/trail and meadow.

___ **No.** S&G #100 is NOT being met with regard to this road and meadow.

___ **I.** Inconclusive. Field evidence not sufficient to determine if S&G #100 is being met.

S&G 100: Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic feature identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement corre where necessary to restore connectivity.

Other Comments

Field Survey for Meadows and Roads [1]

Forest: Eldorado National Forest	**District:** Pacific	**County:**

Observers Steve Markman, Hydrologist	**Date:** August 1 **Time:** 13:15

Number and/or name of road or trail 14N39	**UTM** 0.6 miles 10 S 0741716 4323602
Meadow reference number 14N39 - 3	

Characteristics of meadow

Is the feature a meadow? X **Yes** ____ **No** *(Describe what the feature actually is)*

Does the location of the meadow on-the-ground match the information in GIS? X Yes ____ No
(If the answer is no, please describe the difference).

Wetness of meadow *(Select the best answer at the time of the survey)*

____ **Very wet** (Standing or flowing surface water present in all or a large portion of feature).
____ **Moderately wet** (Surface water in part of feature and/or ground surface wet in most of feature
X **Slightly wet** (No surface water. Ground surface wet in part of feature).
____ **Mostly dry** (No surface water. Ground surface dry in most of feature).
____ **Dry** (No surface water. Ground surface dry in entire feature).

Predominate riparian/wetland vegetation:	**Predominant non-riparian/wetland vegetation:**
Corn lily, grasses	Fir trees surround meadow.
Abundance and location:	Abundance and location:

Proximity and characteristics of motorized routes in the meadow

Does the road or trail enter the meadow? ____ Yes Approx. feet or miles _____ X No
(Describe the location of the road or trail with respect to hydrologic features in the meadow.)

Does the road or trail parallel a portion of the meadow (within 100 ft. of the edge of the meadow)? X Yes ____ No
(Describe the distance that the road or trail parallels the meadow, and attach photos.)
Road parallels meadow for 200 feet, and comes within 20 feet of edge of

Is there evidence of motorized use off of the road or trail and into the meadow? ____ Yes X No
(Describe the evidence, and attach photos.)

Are there stream channel crossings along the road in the meadow? ____ Yes X No
____ Pipes/culverts ____ Bridge ____ Raw cr

Are there cross drain structures along the road or trail in the meadow? ____ Yes X No ____ Pipes/culverts
____ Rolling dip

[1] Use a separate form for each road or trail.

Field Survey for Meadows and Roads (page 2)

14N39-3 8-18-11 Steve Markman

Condition of meadow

Active erosion features (rills, gullies, headcuts) in meadow? ___ Yes X No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the ro

Old, healed erosional features in meadow? X Yes ___ No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the r
Old rills throughout meadow.

Hummocky surface in portions of the meadow? ___ Yes X No *(If yes, describe location and aerial extent in m*

If the road(s) or trail(s) goes through the meadow, is the road/trail noticeably affecting the movement of water through the me
___ Yes ___ No (If yes, d*escribe the physical evidence).*
Road does not go through meadow

If the road) or trail parallels a portion of the meadow, is the road/trail noticeably affecting the movement of water into or out
meadow? ___ Yes X No *(If yes, describe the evidence).*

Is a road(s) or trail(s) contributing sediment into the meadow to the extent that it is noticeably affecting the size and/or functi
meadow? ___ Yes X No *(If yes, describe the physical evidence).*
Rills in road next to meadow are mostly feeding runoff and sediment down r
and not into the meadow.

Other land disturbances within the meadow? X Yes ___ No
(If yes to the above, describe types and extent).
Past logging surrounds meadow. Old road on east side of meadow

Stream flowing through the meadow? ___ Yes X No

Is stream eroding vertically (i.e. active downcutting)?	___ Yes	___ No	No stream.
Is stream eroding laterally (i.e. actively widening?)	___ Yes	___ No	
Does stream contain an active headcut(s)?	___ Yes	___ No	
Does stream contain old (healed) headcut(s)?	___ Yes	___ No	

Aquatic species (incidental sightings only – no survey to a specific protocol)

List aquatic species present, numbers of individuals, and life stage
None observed.

Findings with respect to Standard and Guideline (S&G) #100 of the SNFPA

X **Yes.** S&G #100 is being met with regard to this road/trail and meadow.

___ **No**. S&G #100 is NOT being met with regard to this road and meadow.

___ **I.** Inconclusive. Field evidence not sufficient to determine if S&G #100 is being met.

S&G 100: Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic feature identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement correc where necessary to restore connectivity.

Other Comments Old road on east side of meadow is contributing sediment into

Field Survey for Meadows and Roads [1]

Forest: Eldorado National Forest	**District:** Pacific	**County:**

Observers Steve Markmen, Hydrologist	**Date:** August 15 **Time:** 1400

Number and/or name of road or trail 14N39	**UTM** 0.8 – 0.9 miles fr. 10 S 0741443 4323151
Meadow reference number 14N39 – 4	

Characteristics of meadow

Is the feature a meadow? X **Yes** ____ **No** *(Describe what the feature actually is)*

Does the location of the meadow on-the-ground match the information in GIS? X Yes ____ No
(If the answer is no, please describe the difference).
Mostly alder and corn lily next the outlet stream of Richardson Lake.

Wetness of meadow *(Select the best answer at the time of the survey)*
____ **Very wet** (Standing or flowing surface water present in all or a large portion of feature).
X **Moderately wet** (Surface water in part of feature and/or ground surface wet in most of feature
____ **Slightly wet** (No surface water. Ground surface wet in part of feature).
____ **Mostly dry** (No surface water. Ground surface dry in most of feature).
____ **Dry** (No surface water. Ground surface dry in entire feature).

Predominate riparian/wetland vegetation:	**Predominant non-riparian/wetland vegetation:**
Alder, corn lily, willow.	Fir trees surround meadow.
Abundance and location:	Abundance and location:

Proximity and characteristics of motorized routes in the meadow

Does the road or trail enter the meadow? X Yes Approx. feet or miles 200 feet ____ No
(Describe the location of the road or trail with respect to hydrologic features in the meadow.)
Road cuts across the southwestern corner of the meadow for approx.

Does the road or trail parallel a portion of the meadow (within 100 ft. of the edge of the meadow)? X Yes ____ No
(Describe the distance that the road or trail parallels the meadow, and attach photos.)
Approx, 200 feet of road is within 100 feet of the meadow.

Is there evidence of motorized use off of the road or trail and into the meadow? ____ Yes X No
(Describe the evidence, and attach photos.)

Are there stream channel crossings along the road in the meadow? X Yes ____ No
X Pipes/culverts ____ Bridge ____ Raw cr
2 culverts under paved road crossing of outlet from Richardson La

Are there cross drain structures along the road or trail in the meadow? ____ Yes X No ____ Pipes/culverts
____ Rolling dip

[1] Use a separate form for each road or trail.

Field Survey for Meadows and Roads (page 2)

14N39 - 4 8-15-11 Shi McKinnon

Condition of meadow

Active erosion features (rills, gullies, headcuts) in meadow? ___ Yes X No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the ro

Old, healed erosional features in meadow? ___ Yes X No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the r

Hummocky surface in portions of the meadow? ___ Yes X No *(If yes, describe location and aerial extent in m*

If the road(s) or trail(s) goes through the meadow, is the road/trail noticeably affecting the movement of water through the me
___ Yes X No (If yes, d*escribe the physical evidence).*

If the road) or trail parallels a portion of the meadow, is the road/trail noticeably affecting the movement of water into or out
meadow? ___ Yes X No *(If yes, describe the evidence).*

Is a road(s) or trail(s) contributing sediment into the meadow to the extent that it is noticeably affecting the size and/or functi
meadow? ___ Yes X No *(If yes, describe the physical evidence).*
Rill erosion from road is feeding sediment into the stream. Size of meadow and riparian area next to stream not noticeably

Other land disturbances within the meadow? X Yes ___ No
(If yes to the above, describe types and extent). Past timber harvest.

Stream flowing through the meadow? X Yes ___ No } Qe ≈ 0.1 cfs.

Is stream eroding vertically (i.e. active downcutting)?	___ Yes	X No
Is stream eroding laterally (i.e. actively widening?)	___ Yes	X No
Does stream contain an active headcut(s)?	___ Yes	X No
Does stream contain old (healed) headcut(s)?	___ Yes	X No

Aquatic species (incidental sightings only – no survey to a specific protocol)

List aquatic species present, numbers of individuals, and life stage
None observed.

Findings with respect to Standard and Guideline (S&G) #100 of the SNFPA

X **Yes.** S&G #100 is being met with regard to this road/trail and meadow.

___ **No.** S&G #100 is NOT being met with regard to this road and meadow.

___ **I.** Inconclusive. Field evidence not sufficient to determine if S&G #100 is being met.

S&G 100: Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic feature identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement corre where necessary to restore connectivity.

Other Comments

Field Survey for Meadows and Roads [1]

Forest: Eldorado National Forest	**District:** Pacific	**County:**

Observers Steve Markman, Hydrologist	**Date:** August 18,
	Time: 1430

Number and/or name of road or trail 14N39	**UTM** 1.0 miles from sta.
Meadow reference number 14N39-5	10S 0741496 4323084

Characteristics of meadow

Is the feature a meadow? X **Yes** ____ **No** *(Describe what the feature actually is)*

Does the location of the meadow on-the-ground match the information in GIS? ____ Yes X No
(If the answer is no, please describe the difference).
Small meadow (< 0.5 acres) on southeast side of lake. Not shown in

Wetness of meadow *(Select the best answer at the time of the survey)*
____ **Very wet** (Standing or flowing surface water present in all or a large portion of feature).
X **Moderately wet** (Surface water in part of feature and/or ground surface wet in most of feature
____ **Slightly wet** (No surface water. Ground surface wet in part of feature).
____ **Mostly dry** (No surface water. Ground surface dry in most of feature).
____ **Dry** (No surface water. Ground surface dry in entire feature).

Predominate riparian/wetland vegetation:	**Predominant non-riparian/wetland vegetation:**
Corn lily, alder	Lodgepole pine and fir trees surround meadow.
Abundance and location: Throughout meadow.	Abundance and location:

Proximity and characteristics of motorized routes in the meadow

Does the road or trail enter the meadow? X Yes Approx. feet or miles 100 feet ____ No
(Describe the location of the road or trail with respect to hydrologic features in the meadow.)
Road cuts through meadow for approx. 100 feet.

Does the road or trail parallel a portion of the meadow (within 100 ft. of the edge of the meadow)? ____ Yes X No
(Describe the distance that the road or trail parallels the meadow, and attach photos.)

Is there evidence of motorized use off of the road or trail and into the meadow? ____ Yes X No
(Describe the evidence, and attach photos.)

Are there stream channel crossings along the road in the meadow? ____ Yes X No
____ Pipes/culverts ____ Bridge ____ Raw cr

Are there cross drain structures along the road or trail in the meadow? ____ Yes X No ____ Pipes/culverts
____ Rolling dip

[1] Use a separate form for each road or trail.

Field Survey for Meadows and Roads (page 2)

14N39-5 8-15-11 Steve Markman

Condition of meadow

Active erosion features (rills, gullies, headcuts) in meadow? ___ Yes X No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the ro

Old, healed erosional features in meadow? ___ Yes X No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the r

Hummocky surface in portions of the meadow? ___ Yes X No *(If yes, describe location and aerial extent in m*

If the road(s) or trail(s) goes through the meadow, is the road/trail noticeably affecting the movement of water through the me
X Yes ___ No (If yes, d*escribe the physical evidence).*
100 ft. segment of road intercepts groundwater from meadow and routes water
road and into the stream.
If the road) or trail parallels a portion of the meadow, is the road/trail noticeably affecting the movement of water into or out
meadow? ___ Yes ___ No *(If yes, describe the evidence).*

Not applicable.

Is a road(s) or trail(s) contributing sediment into the meadow to the extent that it is noticeably affecting the size and/or functi
meadow? ___ Yes X No *(If yes, describe the physical evidence).*

Other land disturbances within the meadow? ___ Yes X No
(If yes to the above, describe types and extent).

Stream flowing through the meadow? ___ Yes X No

Is stream eroding vertically (i.e. active downcutting)?	___ Yes	___ No
Is stream eroding laterally (i.e. actively widening?)	___ Yes	___ No
Does stream contain an active headcut(s)?	___ Yes	___ No
Does stream contain old (healed) headcut(s)?	___ Yes	___ No

} No stream

Aquatic species (incidental sightings only – no survey to a specific protocol)

List aquatic species present, numbers of individuals, and life stage

None observed.

Findings with respect to Standard and Guideline (S&G) #100 of the SNFPA

___ **Yes.** S&G #100 is being met with regard to this road/trail and meadow.

X **No.** S&G #100 is NOT being met with regard to this road and meadow.

___ **I.** Inconclusive. Field evidence not sufficient to determine if S&G #100 is being met.

S&G 100: Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic feature identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement correc where necessary to restore connectivity.

Other Comments

Field Survey for Meadows and Roads [1]

Forest: Eldorado National Forest	**District:** Pacific	**County:**

Observers Steve Markman, Hydrologist	**Date:** August 18,
	Time: 1600

Number and/or name of road or trail 14N39	**UTM** On slope above mea
	10S 0741636 1.4
Meadow reference number 14N39 – 6	4322774 start

Characteristics of meadow

Is the feature a meadow? X **Yes** ___ **No** *(Describe what the feature actually is)*

Does the location of the meadow on-the-ground match the information in GIS? X Yes ___ No
(If the answer is no, please describe the difference).

Wetness of meadow *(Select the best answer at the time of the survey)*

___ **Very wet** (Standing or flowing surface water present in all or a large portion of feature).
X **Moderately wet** (Surface water in part of feature and/or ground surface wet in most of feature
X **Slightly wet** (No surface water. Ground surface wet in part of feature).
___ **Mostly dry** (No surface water. Ground surface dry in most of feature).
___ **Dry** (No surface water. Ground surface dry in entire feature).

Predominate riparian/wetland vegetation:	**Predominant non-riparian/wetland vegetation:**
Corn lily, alder, grasses.	Fir trees surround meadow.
Abundance and location: Throughout meadow	Abundance and location:

Proximity and characteristics of motorized routes in the meadow

Does the road or trail enter the meadow? ___ Yes Approx. feet or miles _____ X No
(Describe the location of the road or trail with respect to hydrologic features in the meadow.)

Does the road or trail parallel a portion of the meadow (within 100 ft. of the edge of the meadow)? ___ Yes X No
(Describe the distance that the road or trail parallels the meadow, and attach photos.)
Meadows are more than 100 feet from road 14N39.

Is there evidence of motorized use off of the road or trail and into the meadow? ___ Yes X No
(Describe the evidence, and attach photos.)

Are there stream channel crossings along the road in the meadow? ___ Yes X No
___ Pipes/culverts ___ Bridge ___ Raw cr

Are there cross drain structures along the road or trail in the meadow? ___ Yes X No ___ Pipes/culverts
___ Rolling dip

[1] Use a separate form for each road or trail.

Field Survey for Meadows and Roads (page 2)

14N39 - 6 8 - 18 - 11 Steve Markman

Condition of meadow

Active erosion features (rills, gullies, headcuts) in meadow? ___ Yes X No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the ro

Old, healed erosional features in meadow? X Yes ___ No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the r
Old rills in meadows, most likely the result of past logging.

Hummocky surface in portions of the meadow? ___ Yes X No *(If yes, describe location and aerial extent in m*

If the road(s) or trail(s) goes through the meadow, is the road/trail noticeably affecting the movement of water through the me
___ Yes X No (If yes, d*escribe the physical evidence).*

If the road) or trail parallels a portion of the meadow, is the road/trail noticeably affecting the movement of water into or out
meadow? ___ Yes X No *(If yes, describe the evidence).*

Is a road(s) or trail(s) contributing sediment into the meadow to the extent that it is noticeably affecting the size and/or functi
meadow? ___ Yes X No *(If yes, describe the physical evidence).* (1)
Minor amount of sediment from road is reaching meadow at the present time.

Other land disturbances within the meadow? X Yes ___ No
(If yes to the above, describe types and extent). Past timber harvest surrounds meadow.

Stream flowing through the meadow? ___ Yes X No

Is stream eroding vertically (i.e. active downcutting)?	___ Yes	___ No	No stream.
Is stream eroding laterally (i.e. actively widening?)	___ Yes	___ No	
Does stream contain an active headcut(s)?	___ Yes	___ No	
Does stream contain old (healed) headcut(s)?	___ Yes	___ No	

Aquatic species (incidental sightings only – no survey to a specific protocol)

List aquatic species present, numbers of individuals, and life stage
None observed.

Findings with respect to Standard and Guideline (S&G) #100 of the SNFPA

X **Yes.** S&G #100 is being met with regard to this road/trail and meadow.

___ **No**. S&G #100 is NOT being met with regard to this road and meadow.

___ **I**. Inconclusive. Field evidence not sufficient to determine if S&G #100 is being met.

S&G 100: Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic feature identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement correc where necessary to restore connectivity.

Other Comments
(1) Runoff from road 14N39 has created rills that extend up to 100 feet downslop the road and close to the edge of meadows. Without road maintenance, it is that the meadow will be affected by sediment from the road in the future.

Field Survey for Meadows and Roads [1]

Forest: Eldorado National Forest	**District:** Pacific	**County:**

Observers Steve Markman, Hydrologist	**Date:** August 18,
	Time: 1700

Number and/or name of road or trail 14N39	**UTM** 1.7 miles from sta
Meadow reference number 14N39-7	10 S 0741517 4322524

Characteristics of meadow

Is the feature a meadow? X **Yes** ___ **No** *(Describe what the feature actually is)*

Does the location of the meadow on-the-ground match the information in GIS? ___ Yes X No
(If the answer is no, please describe the difference).

Road cuts across the toe of the meadow. GIS shows only shows the me upslope of the road.

Wetness of meadow *(Select the best answer at the time of the survey)*

___ **Very wet** (Standing or flowing surface water present in all or a large portion of feature).
X **Moderately wet** (Surface water in part of feature and/or ground surface wet in most of feature
___ **Slightly wet** (No surface water. Ground surface wet in part of feature).
___ **Mostly dry** (No surface water. Ground surface dry in most of feature).
___ **Dry** (No surface water. Ground surface dry in entire feature).

Predominate riparian/wetland vegetation:	**Predominant non-riparian/wetland vegetation:**
Corn lily, alder, grasses	Fir trees surround the meadow.
Abundance and location: Throughout meadow	Abundance and location:

Proximity and characteristics of motorized routes in the meadow

Does the road or trail enter the meadow? X Yes Approx. feet or miles 100 feet ___ No
(Describe the location of the road or trail with respect to hydrologic features in the meadow.)

Road cuts across the toe of the meadow for approx. 100 feet.

Does the road or trail parallel a portion of the meadow (within 100 ft. of the edge of the meadow)? ___ Yes X No
(Describe the distance that the road or trail parallels the meadow, and attach photos.)

Is there evidence of motorized use off of the road or trail and into the meadow? ___ Yes X No
(Describe the evidence, and attach photos.)

Are there stream channel crossings along the road in the meadow? X Yes ___ No
___ Pipes/culverts ___ Bridge X Raw cr

Are there cross drain structures along the road or trail in the meadow? ___ Yes X No ___ Pipes/culverts
___ Rolling dip

[1] Use a separate form for each road or trail.

Field Survey for Meadows and Roads (page 2)

14N39-7 8-18-11 Steve Markman

Condition of meadow

Active erosion features (rills, gullies, headcuts) in meadow? X Yes ___ No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the ro

Eroding channels just downslope of road. (1)

Old, healed erosional features in meadow? X Yes ___ No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the r

Numerous small, partially healed rills.

Hummocky surface in portions of the meadow? ___ Yes X No *(If yes, describe location and aerial extent in m*

If the road(s) or trail(s) goes through the meadow, is the road/trail noticeably affecting the movement of water through the me
X Yes ___ No (If yes, d*escribe the physical evidence).*
Road intercepts stream and routes water down the road and onto the slope below the several eroding channels now exist just downslope of the road. (1)

If the road) or trail parallels a portion of the meadow, is the road/trail noticeably affecting the movement of water into or out c meadow? ___ Yes ___ No *(If yes, describe the evidence).*

Not applicable. Road cuts across the meadow.

Is a road(s) or trail(s) contributing sediment into the meadow to the extent that it is noticeably affecting the size and/or functic meadow? X Yes ___ No *(If yes, describe the physical evidence).*

Runoff and sediment from road has decreased the size of meadow downslope of the road.

Other land disturbances within the meadow? X Yes ___ No
(If yes to the above, describe types and extent). Past timber harvest.

Stream flowing through the meadow? X Yes ___ No $Q_e \approx 0.05$ cfs.

Is stream eroding vertically (i.e. active downcutting)?	X Yes	___ No	} downslope of road
Is stream eroding laterally (i.e. actively widening?)	X Yes	___ No	
Does stream contain an active headcut(s)?	___ Yes	X No	
Does stream contain old (healed) headcut(s)?	___ Yes	X No	

Aquatic species (incidental sightings only – no survey to a specific protocol)

List aquatic species present, numbers of individuals, and life stage

None observed.

Findings with respect to Standard and Guideline (S&G) #100 of the SNFPA

___ **Yes.** S&G #100 is being met with regard to this road/trail and meadow.

X **No.** S&G #100 is NOT being met with regard to this road and meadow.

___ **I.** Inconclusive. Field evidence not sufficient to determine if S&G #100 is being met.

S&G 100: Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic feature identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement correc where necessary to restore connectivity.

Other Comments (1) Meadow downslope of the road has decreased in size as a result of er channels (<2 ft. deep) created by runoff from the road and the diversion upslope stream by the road.

Field Survey for Meadows and Roads [1]

Forest: Eldorado National Forest	**District:** Pacific	**County:**

Observers Steve Markman, Hydrologist	**Date:** August 18, **Time:** 1745

Number and/or name of road or trail 14N39	**UTM** 1.9 miles from str. 10 S 0741324 4322424
Meadow reference number 14N39-8	

Characteristics of meadow

Is the feature a meadow? X **Yes** ____ **No** *(Describe what the feature actually is)*

Does the location of the meadow on-the-ground match the information in GIS? ____ Yes X No
(If the answer is no, please describe the difference).
GIS shows meadow on the south side of the road. Meadow is on both sides road on-the-ground, although most of the meadow is on the south side

Wetness of meadow *(Select the best answer at the time of the survey)*
____ **Very wet** (Standing or flowing surface water present in all or a large portion of feature).
____ **Moderately wet** (Surface water in part of feature and/or ground surface wet in most of feature
X **Slightly wet** (No surface water. Ground surface wet in part of feature).
____ **Mostly dry** (No surface water. Ground surface dry in most of feature).
____ **Dry** (No surface water. Ground surface dry in entire feature).

Predominate riparian/wetland vegetation:	**Predominant non-riparian/wetland vegetation:**
Alder, corn lily, grasses,	Fir trees surround meadow.
Abundance and location: Throughout meadow.	Abundance and location:

Proximity and characteristics of motorized routes in the meadow

Does the road or trail enter the meadow? X Yes Approx. feet or miles 300 feet ____ No
(Describe the location of the road or trail with respect to hydrologic features in the meadow.)
Road cuts through the toe of the meadow.

Does the road or trail parallel a portion of the meadow (within 100 ft. of the edge of the meadow)? ____ Yes X No
(Describe the distance that the road or trail parallels the meadow, and attach photos.)

Is there evidence of motorized use off of the road or trail and into the meadow? ____ Yes X No
(Describe the evidence, and attach photos.)

Are there stream channel crossings along the road in the meadow? ____ Yes X No
____ Pipes/culverts ____ Bridge ____ Raw cr

Are there cross drain structures along the road or trail in the meadow? ____ Yes X No ____ Pipes/culverts
____ Rolling dip

[1] Use a separate form for each road or trail.

Field Survey for Meadows and Roads (page 2)

14N39-8 8-18-11 Steve Markman

Condition of meadow

Active erosion features (rills, gullies, headcuts) in meadow? ___ Yes X No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the ro

Old, healed erosional features in meadow? ___ Yes X No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the r

Hummocky surface in portions of the meadow? ___ Yes X No *(If yes, describe location and aerial extent in m*

If the road(s) or trail(s) goes through the meadow, is the road/trail noticeably affecting the movement of water through the me
___ Yes X No (If yes, d*escribe the physical evidence).*

If the road) or trail parallels a portion of the meadow, is the road/trail noticeably affecting the movement of water into or out
meadow? ___ Yes ___ No *(If yes, describe the evidence).*

Not applicable.

Is a road(s) or trail(s) contributing sediment into the meadow to the extent that it is noticeably affecting the size and/or functi
meadow? ___ Yes X No *(If yes, describe the physical evidence).*

Other land disturbances within the meadow? X Yes ___ No
(If yes to the above, describe types and extent). Past timber harvest surround meadow

Stream flowing through the meadow? ___ Yes X No

Is stream eroding vertically (i.e. active downcutting)?	___ Yes	___ No	No stream.
Is stream eroding laterally (i.e. actively widening?)	___ Yes	___ No	
Does stream contain an active headcut(s)?	___ Yes	___ No	
Does stream contain old (healed) headcut(s)?	___ Yes	___ No	

Aquatic species (incidental sightings only – no survey to a specific protocol)

List aquatic species present, numbers of individuals, and life stage

None observed.

Findings with respect to Standard and Guideline (S&G) #100 of the SNFPA

X **Yes.** S&G #100 is being met with regard to this road/trail and meadow.

___ **No.** S&G #100 is NOT being met with regard to this road and meadow.

___ **I.** Inconclusive. Field evidence not sufficient to determine if S&G #100 is being met.

S&G 100: Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic featur
identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement corre
where necessary to restore connectivity.

Other Comments