

GRIZZLY FLATS COMMUNITY SERVICE DISTRICT



EAGLE DITCH HAZARDOUS TREE FELLING PROJECT

PROJECT WORK AREAS A - D

Background

Grizzly Flats Community Services District (GFCSD) provides potable water for domestic use and fire protection to the community of Grizzly Flats in El Dorado County, California. In 2021, the Caldor Fire devastated the community and damaged or destroyed both private residences and public infrastructure. The Caldor fire has left thousands of burnt dead and dying trees in its wake, posing a serious safety concern to the community.

GRCSD owns and maintains a water supply conveyance system (pipeline) referred to as the “Eagle Ditch”, located on private and federal USFS property. The section of pipeline on USFS property is approximately 10,000 l.f. in length, connecting a creek diversion in North Canyon to a second creek diversion in Big Canyon, then continuing to the edge of USFS property where the pipeline continues through private properties until it reaches the GFCSD reservoir. Trees along the Eagle Ditch in this reach suffered nearly 100% mortality. Many of these fire killed or damaged trees (“hazard trees”) are expected to fall in the near future. Hazard trees falling near or across the Eagle Ditch pose a serious threat to GFCSD water supply infrastructure, it’s operation and maintenance staff, and GFCSD contractors.

GFCSD is actively mitigating numerous hazard trees located within striking distance of the Eagle Ditch that pose risk of injury or death to staff and contractors while making repairs to the Eagle Ditch pipeline, and damage to the Eagle Ditch pipeline, thereby interrupting critical water service to the Grizzly Flats community. Said hazard trees have been marked, identified, and quantified. The project area was divided into sections and contracts to fell hazard trees will be approved for each section.

Scope of Work

The primary objective of the Work is to substantially reduce or eliminate the threat of hazard trees standing within striking distance (up to 300') of the Eagle Ditch. At this time, GFCSD is soliciting bids for **Eagle Ditch sections A – D**. The work will consist of eliminating the threat of marked hazard trees. Marked trees are to be felled but not removed. However, it is the Contractor's responsibility to ensure trees are clear of the Eagle Ditch, USFS roads, and left secured (will not roll or slide), thereby allowing GFCSD staff and contractors to access, operate, and maintain the water supply infrastructure.

Hazard trees shall be felled away from the Eagle Ditch to prevent damage to the water supply infrastructure. To avoid erosion control mitigation, felling and related work will be accomplished using primarily hand equipment with limited heavy equipment use where needed to stabilize and adjust the location of logs. Heavy equipment use will be limited to the Eagle Ditch easement. Once the marked hazard trees are felled, Contractor shall partially buck and limb felled trees, leaving a sufficient number of large branches to prevent the tree from rolling. Create burn piles with resulting slash.

Secure felled hazard trees through a combination of position (perpendicular to topographic contours), maintaining all or sections of larger branches, bracing against stumps, bracing against other felled trees, etc. Although it should be minimal, significant soil disturbance shall be mitigated as directed by USFS staff.

Contractor is responsible for the safety of its employees, Work site sanitation (portable toilets), hazardous substances (oil/gas storage and containment), signage to protect the public, and all aspects of the Work as defined herein.

Work shall be performed in accordance with the following provisions:

Work Plan: Contractor shall submit a Work plan with the bid. A Work plan shall define the Contractor's proposed Work, including but not limited to, crew size, equipment, felled tree securing methods, sanitary program, safety program, hazardous materials plan, signage program, proposed erosion control measures, and schedule.

Protection of Water Infrastructure: The water conveyance system (pipeline) is located in the Eagle Ditch, a 10' to 20' wide terraced corridor constructed in the hillside. The pipeline is plastic and has shallow cover. Contractor shall take steps to avoid damage to the pipeline and diversion structures when working near the pipeline. Damage to the pipeline or other GFCSD structures shall be repaired by Contractor at no additional cost to GFCSD.

Safety: Contractor's operations shall facilitate safe and practical inspection of Contractor's operations and allow maintenance and operation of water supply infrastructure in the Work area. Contractor has/have all responsibility for compliance with safety requirements for Contractor 's employees. When operations are in progress adjacent to, near, or on Forest Service controlled roads and trails open to public travel, Contractor shall furnish, install, and maintain all temporary traffic controls that provide the user with adequate warning of hazardous or potentially hazardous conditions associated with operations occurring in the area. The parties shall agree to a specific traffic control plan prior to commencement of work. Devices shall be appropriate to current conditions and shall be covered or removed when not needed. Devices shall be placed on the Eagle Ditch 500' each side of the Work area warning the public of tree felling activity and not to enter the Work area. Devices shall comply with "Standards for Forest Service Signs & Posters".

Conduct of Logging: Unless otherwise specifically provided herein, Contractor shall fell trees designated for cutting. GFCSD/USFS may make exceptions for occasional trees inadvertently not cut for good reason, including possible damage to water infrastructure, forest, roads, etc.

Felling in Clearings: Insofar as ground conditions, tree lean, and shape of clearings permit, trees shall be felled so that their tops do not extend outside Work area or block access roads.

Stump Heights: Stumps shall not exceed, on the side adjacent to the highest ground, the maximum heights allowed by the USFS. Maximum stump heights may be increased to secure felled trees, as permitted by USFS.

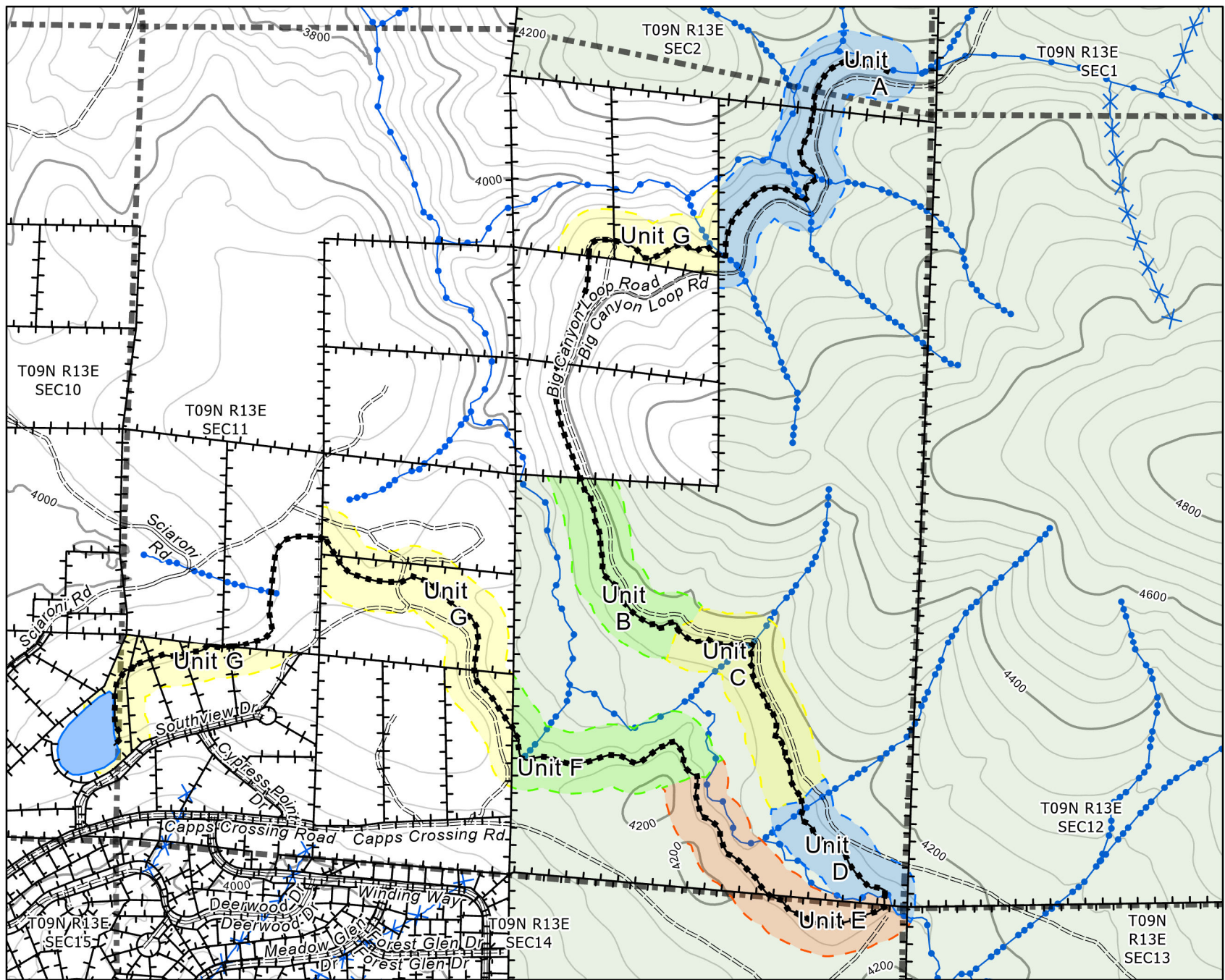
Bucking: Bucking is not required. However, trees shall be bucked when interfering with access, USFS roads, etc. Bucked sections shall be properly stored or secured.

Erosion Control and Protection of Streamcourses: Since skidding and yarding will be minimal, the need for a formal erosion control plan and measures are not anticipated. However, Contractor's Operations shall be conducted to prevent debris from entering streamcourses, except as may be authorized under paragraph (d). In event Contractor cause(s) debris to enter streamcourses in amounts that may adversely affect the natural flow of the stream, water quality, or fishery resource, Contractor shall remove such debris as soon as practicable, but not to exceed 2 days, and in an agreed manner that will cause the least disturbance to streamcourses.

Inspections and Finalizing Work: GFCSD/USFS will inspect Work to confirm marked trees are felled and secured in accordance with the Contractor's Work plan. A final inspection will be conducted once the Contractor has notified GFCSD that the work is completed, including but not limited to, all marked trees are felled and secured, slash piles properly organized, site is left acceptable (erosion control placed as required, oil/gas/trash removed, Ditch surface restored, USFS road restored, etc.). Corrections in Work will be required prior to final payment.

Legend

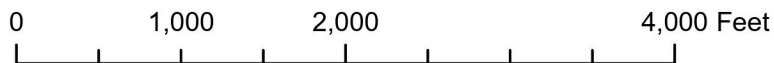
-  Eagle Ditch Pipeline
-  Unit A - Hazard Trees Marked in Blue
-  Unit B - Hazard Trees Marked in Green
-  Unit C - Hazard Trees Marked in Yellow
-  Unit D - Hazard Trees Marked in Blue
-  Unit E - Hazard Trees Marked in Orange
-  Unit F - Hazard Trees Marked in Green
-  Unit G - Hazard Trees Marked in Yellow
-  Parcels
-  USFS Lands
-  Roads
-  Class I Watercourse
-  Class III Watercourse
-  Unclassified Watercourse
-  Reservoir



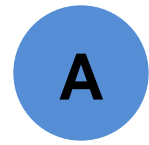
Grizzly Flats Eagle Ditch Hazard Tree Removal - Unit Overview

T09N R13E, Sec 2 & 10-14, Sly Park USGS 7.5' Quad maps, El Dorado County, 40' contours, 1:14,000.
 NAD 1983 UTM Zone 10N

Prepared by TDC
 6/21/2023



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Grizzly Flats Eagle Ditch Hazard Tree Removal Request for Proposal - *Unit A*

June 20, 2023

Unit A is located at the head of the Eagle Ditch in North Canyon, adjacent to an unpaved road, Big Canyon Loop Road (NF-9N47). It goes approximately 200 ft out on either side of the underground pipeline that runs 2,264ft until it meets the edge of USFS property. The unit is 21 acres in size and has an average slope of 11%. The pipeline runs along the southern wall of North Canyon and mainly has a northern aspect. Big Canyon Loop Road runs the entire length of the pipeline, directly south and uphill. At the head of the pipeline, it meets a Class I watercourse; the pipeline then proceeds to traverse underneath three Class III watercourses before leaving USFS property. Certain sections of pipe that have been exposed due to the recent wildfire and/or winter erosion; exercise extreme caution when working around the pipe.

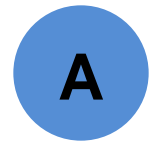
Tree markings in Unit A include blue paint around the tree at breast height and butt marks at the base of the tree contacting ground and tree on both uphill and downhill side. There are approximately 20 green trees located at the beginning of the unit that do not pose a hazard to the pipeline; they are marked with a “L” in white paint on four sides of the tree and have been designating as a “LEAVE” tree. These trees are not to be felled. The beginning and end boundaries of this unit are flagged with pink THP boundary flagging.

There is a total of 872 marked hazard trees for felling in Unit A. Of these, 520 are Douglas Fir, 198 are Incense Cedar, 83 are Ponderosa Pine, 42 are Sugar Pine, 12 are Black Oak, 4 are Madrone, 1 is White Fir, and 12 are other species. We have broken all trees down into three DBH (Diameter at Breast Height) range and average height classes; they are as follows:

- **Small** - trees with DBH less than or equal to 20”
- **Medium** - trees with a DBH greater than 20” and less than 30”
- **Large** - trees greater than or equal to 30”

Average tree height varies by species and has been listed in the table below. DBH was collected within the nearest 2” and height was collected to the nearest 10ft. See the table below for information on the hazard trees:

Tree Species	Tree Class	Tree Count	Average DBH (in)	Average Height (ft)
All	All	872	21	82
Douglas Fir	All	520	20	82
Douglas Fir	Small	300	13	63
Douglas Fir	Medium	112	25	103
Douglas Fir	Large	108	37	115
Incense Cedar	All	198	18	71
Incense Cedar	Small	132	12	55
Incense Cedar	Medium	48	25	98
Incense Cedar	Large	18	36	112
Ponderosa Pine	All	83	26	105



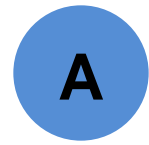
Ponderosa Pine	Small	33	15	83
Ponderosa Pine	Medium	23	26	112
Ponderosa Pine	Large	27	39	128
Sugar Pine	All	42	36	122
Sugar Pine	Small	3	17	87
Sugar Pine	Medium	7	25	110
Sugar Pine	Large	32	41	128
White Fir	All	1	3	30
White Fir	Small	1	3	30
White Fir	Medium	N/A	N/A	N/A
White Fir	Large	N/A	N/A	N/A
Black Oak	All	12	16	43
Black Oak	Small	10	14	43
Black Oak	Medium	1	24	50
Black Oak	Large	1	32	40
Madrone	All	4	14	43
Madrone	Small	4	14	43
Madrone	Medium	N/A	N/A	N/A
Madrone	Large	N/A	N/A	N/A
Other	All	12	13	33
Other	Small	11	12	30
Other	Medium	N/A	N/A	N/A
Other	Large	1	30	70

To avoid damage to the pipeline, roads, and stream courses, hazard tree felling operation may require the implementation of the following practices:

- Use of tree stump jacks for directional tree felling away and/or parallel from the pipeline, road, and/or watercourse
- Use of rope, cable, block and tackle, winches, and or come-alongs may be required to avoid impact to the pipeline, road, and/or watercourse
- Logs felled sidehill will be pinned using stumps and/or other objects to prevent rolling sidehill
- Logs must be bucked and lain flat on the ground surface to stabilize the logs on hill slope
- Tree-tops & limbs are to be lopped and slash treated to meet the Cal Fire Forest Practice Code PRC Title 14, 937.4 –

To reduce fire hazards within the Northern Forest District, treatment of Slash shall be done in addition to requirements of 14 CCR § 937.2 as follows:

- (a) *To provide more efficient firebreaks the areas within fifty (50) feet of the edge of all Public Roads shall be kept free of Slash. Slash between fifty (50) feet and one hundred (100) feet of the edge of said roads and Slash between one hundred to two hundred (100-200) feet of all Approved and Legally Permitted Habitable Structures shall be treated by piling and burning, chipping, burying, removal, or*










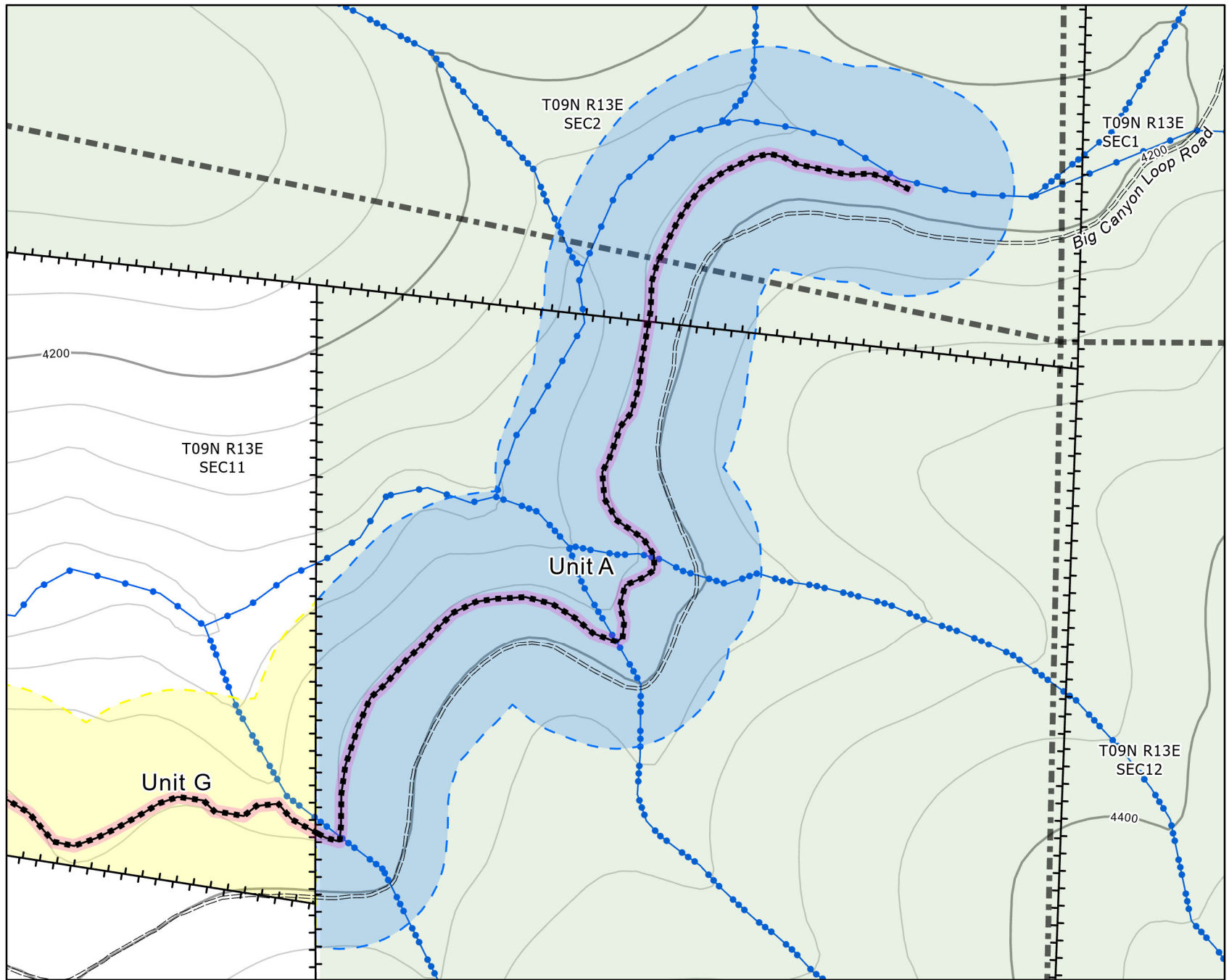
- Lopping to within twelve (12) inches above the ground not later than April 1 of the year following its creation. Distances shall be measured along the surface of the ground. Timber Operations shall not cause a violation of PRC § 4291.*
- (b) All Slash and Woody Debris created by Timber Operations greater than one (1) inch but less than eight (8) inches in diameter within one hundred (100) feet of Approved and Legally Permitted Habitable Structures shall be removed or piled and burned.*
- (c) Concentrations of Slash around logging Landings or located within the Logging Area excluding those areas substantially covered with logs on the ground, shall be crushed, chipped, spread, piled and burned, or otherwise treated no later than April 1st of the following year following their creation.*
- (d) Slash within the Logging Area, excluding those areas substantially covered with logs on the ground, shall be Lopped over the entire Logging Area by April 1st of the year following the creation of the Slash. Slash along roads in the Logging Area shall be Lopped concurrently with its creation.*

Note: Authority cited: Sections 4551 and 4562, Public Resources Code. Reference: Sections 4513, 4551.5 and 4562, Public Resources Code.

The road (as described above), the 25ft wide right of way of the pipeline (12.5ft on either side of the pipeline), and the WLPZ (Watercourse and Lake Protection Zone) from the high water mark, must be cleared of all logs and slash upon completion of hazard tree felling operations.

Legend

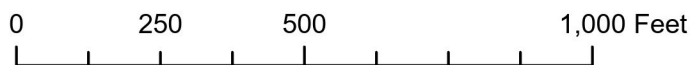
-  Eagle Ditch Pipeline
-  Unit A - Hazard Trees Marked in Blue
-  Unit G - Hazard Trees Marked in Yellow
-  Pipeline Protection Zone
-  Parcels
-  USFS Lands
-  Roads
-  Class I Watercourse
-  Class III Watercourse



Grizzly Flats Eagle Ditch Hazard Tree Removal - Unit A

T09N R13E, Sec 2 & 11, Sly Park USGS 7.5' Quad maps, El Dorado County, 40' contours, 1:4,000.
NAD 1983 UTM Zone 10N

Prepared by TDC
6/20/2023



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Grizzly Flats Eagle Ditch Hazard Tree Removal Request for Proposal - *Unit B*

June 20, 2023

Unit B is located along the eastern edge of Big Canyon, adjacent to an unpaved road, Big Canyon Loop Road (NF-9N47), and south of private property. It goes approximately 200 ft out on either side of the underground pipeline that runs 1,376ft until it meets Unit C. The unit is 12 acres in size and has an average slope of 10%. A portion of the eastern half of this unit has been clear cut by the USFS. The slope is more pronounced at the northern end of the unit, but flattens out before meeting the next unit. The pipeline runs along the eastern wall of Big Canyon and mainly has a southwestern aspect. Big Canyon Loop Road runs the entire length of the pipeline, directly east and uphill. Certain sections of pipe that have been exposed due to the recent wildfire and/or winter erosion; exercise extreme caution when working around the pipe.

Tree markings in Unit B include green paint around the tree at breast height and butt marks at the base of the tree contacting ground and tree on both uphill and downhill side. There are approximately 4 green trees located at the back of the unit that do not pose a hazard to the pipeline; they are marked with a “L” in white paint on four sides of the tree and have been designating as a “LEAVE” tree. These trees are not to be felled. The beginning and end boundaries of this unit are flagged with pink THP boundary flagging.

There is a total of 838 marked hazard trees for felling in Unit B. Of these, 524 are Douglas Fir, 173 are Incense Cedar, 55 are Ponderosa Pine, 66 are Sugar Pine, 13 are Black Oak, and 7 are other species. We have broken all trees down into three DBH (Diameter at Breast Height) range and average height classes; they are as follows:

- **Small** - trees with DBH less than or equal to 20”
- **Medium** - trees with a DBH greater than 20” and less than 30”
- **Large** - trees greater than or equal to 30”

Average tree height varies by species and has been listed in the table below. DBH was collected within the nearest 2” and height was collected to the nearest 10ft. See the table below for information on the hazard trees:

Tree Species	Tree Class	Tree Count	Average DBH (in)	Average Height (ft)
All	All	838	21	85
Douglas Fir	All	524	20	83
Douglas Fir	Small	287	13	64
Douglas Fir	Medium	162	25	101
Douglas Fir	Large	75	35	116
Incense Cedar	All	173	21	80
Incense Cedar	Small	90	13	60
Incense Cedar	Medium	47	25	93
Incense Cedar	Large	36	34	113
Ponderosa Pine	All	55	23	97



Ponderosa Pine	Small	24	14	80
Ponderosa Pine	Medium	18	25	103
Ponderosa Pine	Large	13	35	122
Sugar Pine	All	66	31	110
Sugar Pine	Small	10	13	75
Sugar Pine	Medium	17	26	98
Sugar Pine	Large	39	37	124
White Fir	All	N/A	N/A	N/A
White Fir	Small	N/A	N/A	N/A
White Fir	Medium	N/A	N/A	N/A
White Fir	Large	N/A	N/A	N/A
Black Oak	All	13	22	81
Black Oak	Small	6	13	65
Black Oak	Medium	3	24	77
Black Oak	Large	4	34	108
Madrone	All	N/A	N/A	N/A
Madrone	Small	N/A	N/A	N/A
Madrone	Medium	N/A	N/A	N/A
Madrone	Large	N/A	N/A	N/A
Other	All	7	10	41
Other	Small	6	8	42
Other	Medium	1	22	40
Other	Large	N/A	N/A	N/A

To avoid damage to the pipeline, roads, and stream courses, hazard tree felling operation may require the implementation of the following practices:

- Use of tree stump jacks for directional tree felling away and/or parallel from the pipeline, road, and/or watercourse
- Use of rope, cable, block and tackle, winches, and or come-alongs may be required to avoid impact to the pipeline, road, and/or watercourse
- Logs felled sidehill will be pinned using stumps and/or other objects to prevent rolling sidehill
- Logs must be bucked and lain flat on the ground surface to stabilize the logs on hill slope
- Tree-tops & limbs are to be lopped and slash treated to meet the Cal Fire Forest Practice Code PRC Title 14, 937.4 –

To reduce fire hazards within the Northern Forest District, treatment of Slash shall be done in addition to requirements of 14 CCR § 937.2 as follows:

- (a) *To provide more efficient firebreaks the areas within fifty (50) feet of the edge of all Public Roads shall be kept free of Slash. Slash between fifty (50) feet and one hundred (100) feet of the edge of said roads and Slash between one hundred to two hundred (100-200) feet of all Approved and Legally Permitted Habitable Structures shall be treated by piling and burning, chipping, burying, removal, or*



Lopping to within twelve (12) inches above the ground not later than April 1 of the year following its creation. Distances shall be measured along the surface of the ground. Timber Operations shall not cause a violation of PRC § 4291.

(b) All Slash and Woody Debris created by Timber Operations greater than one (1) inch but less than eight (8) inches in diameter within one hundred (100) feet of Approved and Legally Permitted Habitable Structures shall be removed or piled and burned.










(c) Concentrations of Slash around logging Landings or located within the Logging Area excluding those areas substantially covered with logs on the ground, shall be crushed, chipped, spread, piled and burned, or otherwise treated no later than April 1st of the following year following their creation.

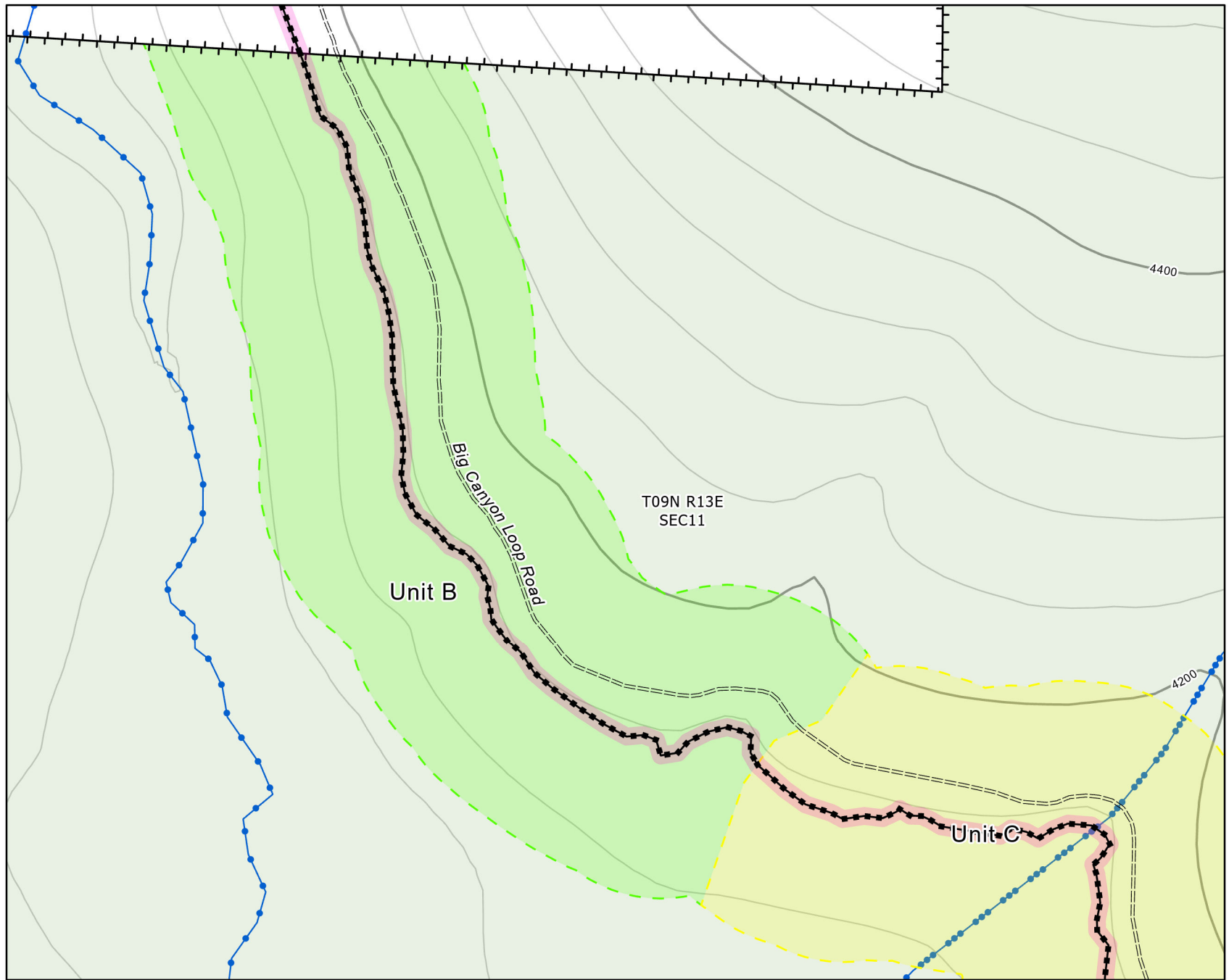
(d) Slash within the Logging Area, excluding those areas substantially covered with logs on the ground, shall be Lopped over the entire Logging Area by April 1st of the year following the creation of the Slash. Slash along roads in the Logging Area shall be Lopped concurrently with its creation.

Note: Authority cited: Sections 4551 and 4562, Public Resources Code. Reference: Sections 4513, 4551.5 and 4562, Public Resources Code.

The road (as described above), the 25ft wide right of way of the pipeline (12.5ft on either side of the pipeline), and the WLPZ (Watercourse and Lake Protection Zone) from the high water mark, must be cleared of all logs and slash upon completion of hazard tree felling operations.

Legend

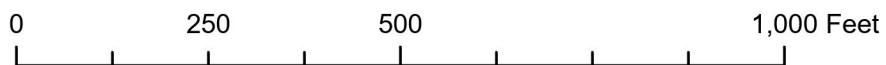
-  Eagle Ditch Pipeline
-  Unit B - Hazard Trees Marked in Green
-  Unit C - Hazard Trees Marked in Yellow
-  Pipeline Protection Zone
-  Parcels
-  USFS Lands
-  Roads
-  Class I Watercourse
-  Class III Watercourse



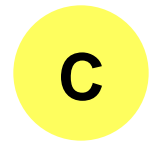
Grizzly Flats Eagle Ditch Hazard Tree Removal - Unit B

T09N R13E, Sec 11, Sly Park USGS 7.5' Quad maps, El Dorado County, 40' contours, 1:3,000.
NAD 1983 UTM Zone 10N

Prepared by TDC
6/20/2023



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Grizzly Flats Eagle Ditch Hazard Tree Removal Request for Proposal - *Unit C*

June 20, 2023

Unit C is located along the eastern edge of Big Canyon, adjacent to an unpaved road, Big Canyon Loop Road (NF-9N47). It goes approximately 200 ft out on either side of the underground pipeline that runs 1,723ft until it meets Unit D. The unit is 14 acres in size and has an average slope of 7%. A significant portion of the eastern half of this unit has been clear cut by the USFS. The slope is consistent throughout the unit. The pipeline runs along the eastern wall of Big Canyon and mainly has a western aspect. Big Canyon Loop Road runs the entire length of the pipeline, directly east and uphill. The pipeline traverses underneath a Class III watercourse at the beginning of the unit. Certain sections of pipe that have been exposed due to the recent wildfire and/or winter erosion; exercise extreme caution when working around the pipe.

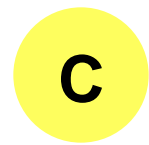
Tree markings in Unit C include yellow paint around the tree at breast height and butt marks at the base of the tree contacting ground and tree on both uphill and downhill side. There may be green trees located in the unit that do not pose a hazard to the pipeline; they are marked with a “L” in white paint on four sides of the tree and have been designating as a “LEAVE” tree. These trees are not to be felled. The beginning and end boundaries of this unit are flagged with pink THP boundary flagging.

There is a total of 802 marked hazard trees for felling in Unit C. Of these, 466 are Douglas Fir, 192 are Incense Cedar, 107 are Ponderosa Pine, 22 are Sugar Pine, 4 are Black Oak, and 11 are other species. We have broken all trees down into three DBH (Diameter at Breast Height) range and average height classes; they are as follows:

- **Small** - trees with DBH less than or equal to 20”
- **Medium** - trees with a DBH greater than 20” and less than 30”
- **Large** - trees greater than or equal to 30”

Average tree height varies by species and has been listed in the table below. DBH was collected within the nearest 2” and height was collected to the nearest 10ft. See the table below for information on the hazard trees:

Tree Species	Tree Class	Tree Count	Average DBH (in)	Average Height (ft)
All	All	802	25	95
Douglas Fir	All	466	24	94
Douglas Fir	Small	186	12	66
Douglas Fir	Medium	113	26	104
Douglas Fir	Large	167	35	118
Incense Cedar	All	192	23	94
Incense Cedar	Small	84	14	63
Incense Cedar	Medium	52	25	94
Incense Cedar	Large	56	34	114
Ponderosa Pine	All	107	31	114



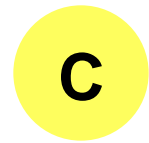
Ponderosa Pine	Small	33	15	83
Ponderosa Pine	Medium	23	26	112
Ponderosa Pine	Large	27	39	128
Sugar Pine	All	22	35	118
Sugar Pine	Small	1	9	40
Sugar Pine	Medium	4	28	113
Sugar Pine	Large	17	38	124
White Fir	All	N/A	N/A	N/A
White Fir	Small	N/A	N/A	N/A
White Fir	Medium	N/A	N/A	N/A
White Fir	Large	N/A	N/A	N/A
Black Oak	All	4	31	110
Black Oak	Small	N/A	N/A	N/A
Black Oak	Medium	1	27	110
Black Oak	Large	3	32	110
Madrone	All	N/A	N/A	N/A
Madrone	Small	N/A	N/A	N/A
Madrone	Medium	N/A	N/A	N/A
Madrone	Large	N/A	N/A	N/A
Other	All	11	9	37
Other	Small	11	9	37
Other	Medium	N/A	N/A	N/A
Other	Large	N/A	N/A	N/A

To avoid damage to the pipeline, roads, and stream courses, hazard tree felling operation may require the implementation of the following practices:

- Use of tree stump jacks for directional tree felling away and/or parallel from the pipeline, road, and/or watercourse
- Use of rope, cable, block and tackle, winches, and or come-alongs may be required to avoid impact to the pipeline, road, and/or watercourse
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- (a) *To provide more efficient firebreaks the areas within fifty (50) feet of the edge of all Public Roads shall be kept free of Slash. Slash between fifty (50) feet and one hundred (100) feet of the edge of said roads and Slash between one hundred to two hundred (100-200) feet of all Approved and Legally Permitted Habitable Structures shall be treated by piling and burning, chipping, burying, removal, or*



Lopping to within twelve (12) inches above the ground not later than April 1 of the year following its creation. Distances shall be measured along the surface of the ground. Timber Operations shall not cause a violation of PRC § 4291.

(b) All Slash and Woody Debris created by Timber Operations greater than one (1) inch but less than eight (8) inches in diameter within one hundred (100) feet of Approved and Legally Permitted Habitable Structures shall be removed or piled and burned.

(c) Concentrations of Slash around logging Landings or located within the Logging Area excluding those areas substantially covered with logs on the ground, shall be crushed, chipped, spread, piled and burned, or otherwise treated no later than April 1st of the following year following their creation.

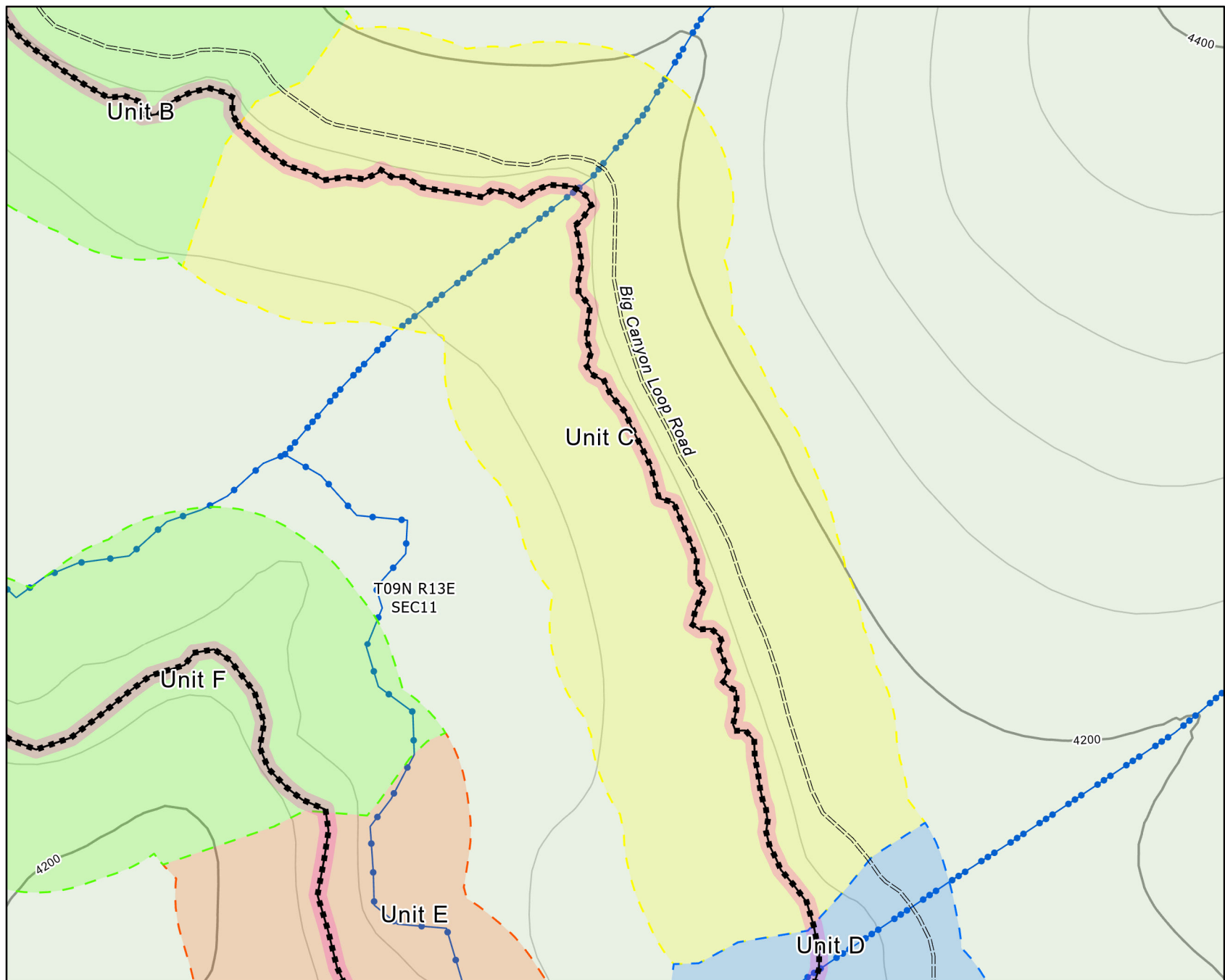
(d) Slash within the Logging Area, excluding those areas substantially covered with logs on the ground, shall be Lopped over the entire Logging Area by April 1st of the year following the creation of the Slash. Slash along roads in the Logging Area shall be Lopped concurrently with its creation.

Note: Authority cited: Sections 4551 and 4562, Public Resources Code. Reference: Sections 4513, 4551.5 and 4562, Public Resources Code.

The road (as described above), the 25ft wide right of way of the pipeline (12.5ft on either side of the pipeline), and the WLPZ (Watercourse and Lake Protection Zone) from the high water mark, must be cleared of all logs and slash upon completion of hazard tree felling operations.

Legend

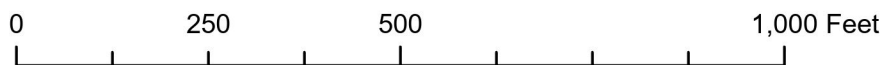
-  Eagle Ditch Pipeline
-  Unit B - Hazard Trees Marked in Green
-  Unit C - Hazard Trees Marked in Yellow
-  Unit D - Hazard Trees Marked in Blue
-  Unit E - Hazard Trees Marked in Orange
-  Unit F - Hazard Trees Marked in Green
-  Pipeline Protection Zone
-  Parcels
-  USFS Lands
-  Roads
-  Class I Watercourse
-  Class III Watercourse



Grizzly Flats Eagle Ditch Hazard Tree Removal - Unit C

T09N R13E, Sec 11, Sly Park USGS 7.5' Quad maps, El Dorado County, 40' contours, 1:3,000.
 NAD 1983 UTM Zone 10N

Prepared by TDC
 6/20/2023



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Grizzly Flats Eagle Ditch Hazard Tree Removal Request for Proposal - *Unit D*

June 20, 2023

Unit D is located along the eastern edge of Big Canyon, partially adjacent to an unpaved road, Big Canyon Loop Road (NF-9N47). It goes approximately 200 ft out on either side of the underground pipeline that runs 925ft until it meets the northern edge of Big Canyon Creek. The unit is 9 acres in size and has an average slope of 3%. A significant portion of the northeastern half of this unit has been clear cut by the USFS. The slope is consistent throughout the unit. The pipeline runs along the eastern wall of Big Canyon and mainly has a southwestern aspect. Big Canyon Loop Road runs the entire length of the pipeline, directly east and uphill; however, at the southern part of the unit, the road stays parallel with creek and the pipeline veers towards the creek until it crosses through. There is an intake where it crosses. The pipeline traverses underneath a Class III watercourse at the beginning of the unit and crosses a Class I watercourse at the terminus of Unit D. Certain sections of pipe that have been exposed due to the recent wildfire and/or winter erosion; exercise extreme caution when working around the pipe.

Tree markings in Unit D include blue paint around the tree at breast height and butt marks at the base of the tree contacting ground and tree on both uphill and downhill side. There are around four green trees located in the unit that do not pose a hazard to the pipeline; they are marked with a “L” in white paint on four sides of the tree and have been designating as a “LEAVE” tree. These trees are not to be felled. The beginning and end boundaries of this unit are flagged with pink THP boundary flagging.

There is a total of 605 marked hazard trees for felling in Unit D. Of these, 409 are Douglas Fir, 128 are Incense Cedar, 33 are Ponderosa Pine, 13 are Sugar Pine, 13 are Madrone, and 9 are other species. We have broken all trees down into three DBH (Diameter at Breast Height) range and average height classes; they are as follows:

- **Small** - trees with DBH less than or equal to 20”
- **Medium** - trees with a DBH greater than 20” and less than 30”
- **Large** - trees greater than or equal to 30”

Average tree height varies by species and has been listed in the table below. DBH was collected within the nearest 2” and height was collected to the nearest 10ft. See the table below for information on the hazard trees:

Tree Species	Tree Class	Tree Count	Average DBH (in)	Average Height (ft)
All	All	605	25	102
Douglas Fir	All	409	25	104
Douglas Fir	Small	192	12	66
Douglas Fir	Medium	46	25	123
Douglas Fir	Large	171	40	142
Incense Cedar	All	128	24	93
Incense Cedar	Small	55	12	60



Incense Cedar	Medium	29	26	101
Incense Cedar	Large	44	37	129
Ponderosa Pine	All	33	36	136
Ponderosa Pine	Small	4	14	68
Ponderosa Pine	Medium	6	27	152
Ponderosa Pine	Large	23	42	144
Sugar Pine	All	13	43	143
Sugar Pine	Small	N/A	N/A	N/A
Sugar Pine	Medium	N/A	N/A	N/A
Sugar Pine	Large	13	43	143
White Fir	All	N/A	N/A	N/A
White Fir	Small	N/A	N/A	N/A
White Fir	Medium	N/A	N/A	N/A
White Fir	Large	N/A	N/A	N/A
Black Oak	All	N/A	N/A	N/A
Black Oak	Small	N/A	N/A	N/A
Black Oak	Medium	N/A	N/A	N/A
Black Oak	Large	N/A	N/A	N/A
Madrone	All	13	13	25
Madrone	Small	11	10	23
Madrone	Medium	2	25	40
Madrone	Large	N/A	N/A	N/A
Other	All	9	10	30
Other	Small	9	10	30
Other	Medium	N/A	N/A	N/A
Other	Large	N/A	N/A	N/A

To avoid damage to the pipeline, roads, and stream courses, hazard tree felling operation may require the implementation of the following practices:

- Use of tree stump jacks for directional tree felling away and/or parallel from the pipeline, road, and/or watercourse
- Use of rope, cable, block and tackle, winches, and or come-alongs may be required to avoid impact to the pipeline, road, and/or watercourse
- Logs felled sidehill will be pinned using stumps and/or other objects to prevent rolling sidehill
- Logs must be bucked and lain flat on the ground surface to stabilize the logs on hill slope
- Tree-tops & limbs are to be lopped and slash treated to meet the Cal Fire Forest Practice Code PRC Title 14, 937.4 –

To reduce fire hazards within the Northern Forest District, treatment of Slash shall be done in addition to requirements of 14 CCR § 937.2 as follows:













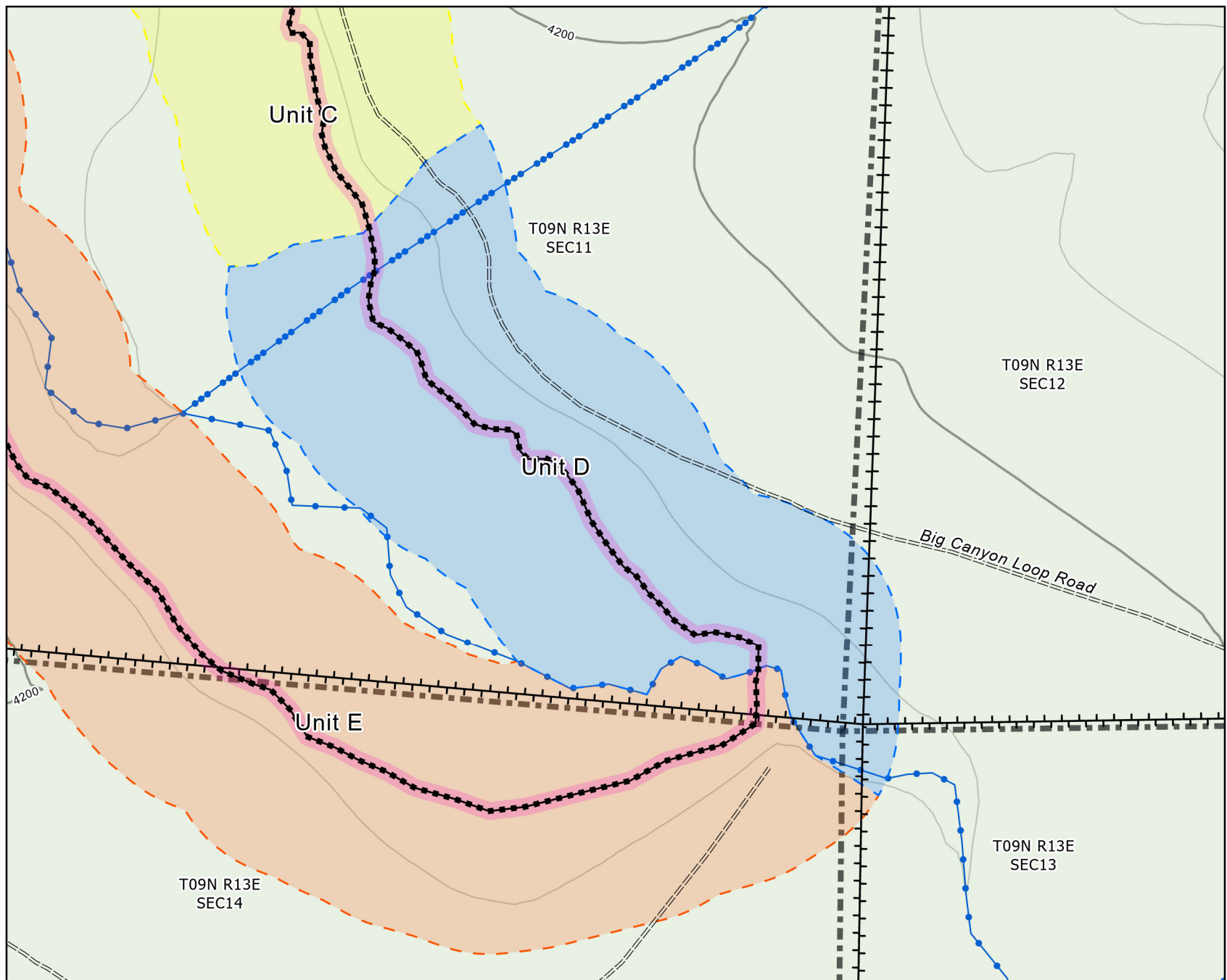
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Legend

-  Eagle Ditch Pipeline
-  Unit C - Hazard Trees Marked in Yellow
-  Unit D - Hazard Trees Marked in Blue
-  Unit E - Hazard Trees Marked in Orange
-  Pipeline Protection Zone
-  Parcels
-  USFS Lands
-  Roads
-  Class I Watercourse
-  Class III Watercourse



Grizzly Flats Eagle Ditch Hazard Tree Removal - Unit D

T09N R13E, Sec 11-14, Sly Park USGS 7.5' Quad maps, El Dorado County, 40' contours, 1:3,000.
NAD 1983 UTM Zone 10N

Prepared by TDC
6/20/2023



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