WildWood RESORT

Gunnison, Colorado

2 Miles

Wild River Lane

Granite Lane

Wild Rose Lane

1312 Tomichi Avenue Lane

1312

Trash Dumpster

OFFICE

HOT TUB

105 107 109 111 113 115 117

102 104 106 108 100 103

1312 #1 1312 #2 1312 #3 1312 #4 1312 #5 1312 #6 1312 #7 1312 #8 1312 #9 1312 #10 1312 #11 1312 #12 1312 #14 1312 #15 1312 #16 1312 #17 1312 #18 1312 #19 1312 #20 1312 #21 1312 #22 1312 #23 1312 #24

77 76 — Spruce

1/23/2019

8/19/2015

TOMICHI AVENUE

2019 Wildwood Townhomes Association Tree Inventory

Tree	Species	Size	Likelihood of Faliure- Class A	Likelihood of Target Imapct- Class B	Consequences of Faliure- Class C	Subtotal 1 (A+B+C)	Target- Class D	Species- Class E	Action- Class F	Subtotal 2 (D+E+F)	Prioritized Rating (Subtotal 1 X Subtotal 2)	Notes
1	Narrowleaf Cottonwood	38	4	4	4	12	4	4	4	12	144	Tree is dead, removal of tree is recommended
2	Narrowleaf Cottonwood	29.5	1	2	2	5	4	4	1	9	45	Overpurning of live branches has resulted in multiple stems of epicormic branching
3	Narrowleaf Cottonwood	24.7	1	2	2	5	4	4	1	9	45	Overpurning of live branches has resulted in multiple stems of epicormic branching
4	Narrowleaf Cottonwood	25.2	1	2	2	5	4	4	1	9	45	Overpurning of live branches has resulted in multiple stems of epicormic branching
5	Narrowleaf Cottonwood	30	2	2	2	6	3	4	3	10	60	Prune dead wood
6	Narrowleaf Cottonwood	35	2	2	2	6	3	4	3	10	60	Prune dead wood/ Cavaties are present
7	TREE HAS BEEN REMOVED	-	-	-	-	-	-	-	-	-	-	TREE HAS BEEN REMOVED
8	Narrowleaf Cottonwood	16	2	2	2	6	2	4	3	9	54	Prune dead wood/ Previously failed limb
9	Narrowleaf Cottonwood	19.5	2	3	2	7	1	4	1	6	42	
10	Narrowleaf Cottonwood	25.3	2	2	2	6	2	4	3	9	54	Prune dead wood
11	Narrowleaf Cottonwood	29	2	3	3	8	3	4	2	9	72	Tree lacks vigor/ Co-dominant stem at 25 feet
12	Narrowleaf Cottonwood	32.2	2	3	3	8	3	4	3	10	80	Prune dead wood/ Co-dominant stem at 30 feet/ Cavaty is present
13	Narrowleaf Cottonwood	32.5	3	3	2	8	2	4	3	9	72	Prune dead wood/ No tag present
14	Narrowleaf Cottonwood	31.5	2	3	3	8	3	4	2	9	72	
15	Narrowleaf Cottonwood	26.6	1	2	1	4	1	4	1	6	24	Co-dominant trunk
16	Narrowleaf Cottonwood	22.2	3	1	1	5	1	4	1	6	30	
17	Narrowleaf Cottonwood	30.5	2	2	3	7	3	4	2	9	63	Co-dominant stem has been removed
18	TREE HAS BEEN REMOVED	-	-	-	-	-	-	-	-	-	-	TREE HAS BEEN REMOVED
19	Narrowleaf Cottonwood	20.8	1	1	1	3	1	4	1	6	18	Co-dominant stem
20	Narrowleaf Cottonwood	22.3	2	2	1	5	1	4	1	6	30	Prune dead wood, co-dominant stem
21	Narrowleaf Cottonwood	22	1	2	1	4	2	4	1	7	28	Prune dead wood/ Tree has been previously topped/ Cavity present/ Decay probable
22	Narrowleaf Cottonwood	20.4	2	1	1	4	1	4	1	6	24	Prune dead wood/ Co-dominant stem
23	Narrowleaf Cottonwood	25.8	1	1	1	3	1	4	1	6	18	Previously topped tree, existing crown is made up of epicormic branches/ Large cavity makes an excellent wildlife tree
24	Narrowleaf Cottonwood	42.2	2	2	3	7	3	4	1	8	56	Decay present at base of tree
25	Narrowleaf Cottonwood	26.3	2	3	3	8	3	4	1	8	64	Previously topped tree/ Cavity present at top
26	Narrowleaf Cottonwood	24.8	3	3	3	9	3	4	3	10	90	Prune dead wood/ Previously topped tree/ Poor pruning cuts not flush with tree collar
27	Narrowleaf Cottonwood	25.5	2	3	2	7	3	4	3	10	70	Prune dead wood/ Dead wood over road
28	Narrowleaf Cottonwood	20	1	1	1	3	3	4	1	8	24	Co-dominant stem/ Evidence of aphids
29	Narrowleaf Cottonwood	16.8	1	2	1	4	1	4	1	6	24	
30	Narrowleaf Cottonwood	18.3	2	1	1	4	1	4	1	6	24	Co-dominant stems at 2 feet
31	Narrowleaf Cottonwood	18	1	2	1	4	1	4	1	6	24	At house corner
32	Narrowleaf Cottonwood	17.3	2	2	1	5	2	4	2	8	40	Prune dead wood
33	Narrowleaf Cottonwood	18.1	2	2	1	5	3	4	3	10	50	Prune dead wood
34	Narrowleaf Cottonwood	23.3	2	3	2	7	3	4	4	11	77	Prune dead wood
35	Narrowleaf Cottonwood	17	1	1	3	5	3	4	1	8	40	
36	TREE HAS BEEN REMOVED	-	-	-	-	-	-	-	-	-	-	TREE HAS BEEN REMOVED
37	Narrowleaf Cottonwood	18.3	2	3	1	6	3	4	1	8	48	
38	Narrowleaf Cottonwood	18.2	2	3	1	6	3	4	1	8	48	Tree leaning over structure
39	Narrowleaf Cottonwood	17	1	1	1	3	3	4	1	8	24	No tag/ Very little dead wood
40	Narrowleaf Cottonwood	17.7	1	1	1	3	3	4	1	8	24	Very little dead wood

2019 Wildwood Townhomes Association Tree Inventory

Tree	Species	Size	Likelihood of Faliure- Class A	Likelihood of Target Imapct- Class B	Consequences of Faliure- Class C	Subtotal 1 (A+B+C)	Target- Class D	Species- Class E	Action- Class F	Subtotal 2 (D+E+F)	Prioritized Rating (Subtotal 1 X Subtotal 2)	Notes
41	Narrowleaf Cottonwood	13.2	1	1	1	3	3	4	1	8	24	Very little dead wood
42	Narrowleaf Cottonwood	19.2	2	3	2	7	3	4	1	8	56	Previously topped tree/ Cavity present
43	Narrowleaf Cottonwood	30.3	2	3	2	7	3	4	1	8	56	Co-dominant at 2 feet/ Previously topped tree/ Cavity present
44	Narrowleaf Cottonwood	21.5	1	1	2	4	2	4	1	7	28	Previously topped tree/ Tree up against fence, bark wound exists against fence
45	Narrowleaf Cottonwood	23	2	2	2	6	1	4	1	6	36	Previously topped tree
46	Narrowleaf Cottonwood	23.2	2	2	1	5	3	4	1	8	40	Previously topped tree
47	Narrowleaf Cottonwood	14.7	2	2	1	5	3	4	1	8	40	Prune dead wood/ Injury on west side of trunk
48	Narrowleaf Cottonwood	20	1	2	2	5	2	4	1	7	35	Tree leaning over canal
49	Narrowleaf Cottonwood	19	1	2	1	4	3	4	1	8	32	Previously topped/ Heavy epicormic branching
50	Narrowleaf Cottonwood	21	2	2	3	7	3	4	1	8	56	Previously topped/ Heavy epicormic branching/ Cavity present
51	Narrowleaf Cottonwood	20.8	2	2	3	7	3	4	1	8	56	Previously topped/ Heavy epicormic branching
52	Narrowleaf Cottonwood	16.9	1	1	1	3	2	4	1	7	21	
53	Narrowleaf Cottonwood	19	1	1	1	3	2	4	1	7	21	No tag
54	Narrowleaf Cottonwood	20	1	1	1	3	2	4	1	7	21	Previously topped
55	Narrowleaf Cottonwood	20.5	1	1	1	3	3	4	1	8	24	Previously topped
56	Narrowleaf Cottonwood	20	2	3	3	8	3	4	1	8	64	No tag
57	Narrowleaf Cottonwood	17	2	2	2	6	3	4	1	8	48	
58	Narrowleaf Cottonwood	18	2	3	2	7	3	4	1	8	56	Injury on West Side of Trunk
59	Narrowleaf Cottonwood	19.6	2	2	2	6	3	4	1	8	48	
60	Narrowleaf Cottonwood	26.5	1	2	2	5	1	4	1	6	30	
61	TREE HAS BEEN REMOVED	-	-	-	-	-	-	-	-	-	-	TREE HAS BEEN REMOVED
62	Narrowleaf Cottonwood	14	1	1	1	3	1	4	1	6	18	Co-dominant at 3 feet
63	Narrowleaf Cottonwood	24.9	1	1	3	5	3	4	1	8	40	
64	Narrowleaf Cottonwood	25.7	2	2	1	5	3	4	1	8	40	
65	Narrowleaf Cottonwood	20.8	2	2	1	5	3	4	1	8	40	
66	TREE HAS BEEN REMOVED	-	-	-	-	-	-	-	-	-	-	TREE HAS BEEN REMOVED
67	TREE HAS BEEN REMOVED	-	-	-	-	-	-	-	-	-	-	TREE HAS BEEN REMOVED
68	Narrowleaf Cottonwood	21.5	1	1	1	3	4	4	1	9	27	Previously topped
69	Narrowleaf Cottonwood	15.7	2	2	2	6	4	4	1	9	54	Cavity present
70	Narrowleaf Cottonwood	25	1	2	2	5	4	4	1	9	45	Previously topped
71	Narrowleaf Cottonwood	17.7	1	1	1	3	4	4	1	9	27	Previously topped
72	Narrowleaf Cottonwood	18.2	2	2	2	6	4	4	1	9	54	Small deadwood
73	TREE HAS BEEN REMOVED	-	-	-	-	-	-	-	-	-	-	TREE HAS BEEN REMOVED
74	Narrowleaf Cottonwood	31.6	1	1	1	3	4	4	1	9	27	Tree has been previously topped/ Decay probable
75	Narrowleaf Cottonwood	30.9	2	2	2	6	4	4	3	11	66	Prune dead wood/ Tree has been previously topped
76	Blue Spruce	26.8	1	2	3	6	3	3	1	7	42	Shallow roots/ Vulnerable to whole tree failure when ground is saturated
77	Englemann Spruce	21.4	1	2	3	6	3	3	1	7	42	Shallow roots/ Vulnerable to whole tree failure when ground is saturated
78	Willow spp.	23.5	1	2	2	5	3	4	1	8	40	

Likelihood of Failure (A)

1 – Improbable: Not likely to fail under normal weather conditions

- *Minor branch dieback < 2" dia.*
- *Minor defects or wounds < 20% of tree*

2 – Possible: Failure could occur, but is unlikely under normal weather conditions

- *Stem decay w/in safe shell limits*
- *Defects affecting 30-40% circumference*
- *Crown damage: decid.<50%, conf.<30%*
- *Co-dominant leaders with included bark*
- *Girdling roots <40% of circumference*
- *Root damage, <40% of total # or roots*

3 – Probable: Failure maybe expected under normal weather conditions

- *Cracks in contact with soil*
- *Decay exceeding safe shell limits*
- *Defects affecting >40% of circumference*
- *Crown damage: decid.>50%, conf.>30%*
- *Weak branch union with crack or decay*
- *Girdling root >40% circumference*
- *Root damage >40%*
- *Leaning tree, recent root breakage*
- *Standing dead w/out significant defects*

4 – Imminent: Failure has started or most likely to occur in the near future

- *Stem decay exceeding safe shell limits*
- *Cracks with branch split in half*
- *Defects affecting >40% of circumference*
- *Extensive decay of roots >40%*
- *Broken hangers in crown >3 inches*
- *Dead trees with decay, cracks, hangers*
- *Leaning tree hung up in adjacent tree*

Likelihood of Target Impact (B)

1 – Very Low: The chance of the failed tree or branch impacting the target is remote

- *tree or part that would fall away from street, sidewalk or public area*

2 – Low: It is not likely that the failed tree or part will impact the target

- *tree or part fall into adjacent tree or structure, target is protected*

3 – Medium: The failed tree or part may or may not impact the target with equal likelihood.

- *tree or part would fall into target zone area or partially impact the target*

4 – High: The failed tree or part will most likely impact the target

- *tree or part will fall into target zone area*

Consequences of Failure (C)

1 – Negligible: No personal injury, low-value property damage, disruption can be easily mitigated

2 – Minor: Minor personal injury, low to moderate property damage, small disruption to activities

3 – Significant: Personal injury, moderate to high value property damage, considerable activity disruption

4 – Severe: Serious personal injury or death, damage to high value property, disruption of important activities

Target (D)

1 – Low Use: Low to moderate length of time in the target zone, *rare visitation in target area*

2 – Moderate Use: Moderate to high length of time in the target zone, *occasional visitation*

3 – High Use: Long to very long length of time in the target zone, *present in target area for large portion of the day*

4 – Very High Use: very high length of time in the target zone, *constant presence in target area*

Species (E)

1 – Low: Small ornamental or evergreen, *e.g., plum, river birch, Gambel oak, pinyon/juniper*

2 – Moderate: Medium-sized tree, *e.g., aspen, crab, honeylocust, walnut, ponderosa pine*

3 – High: Large-sized tree, *e.g., green ash, hackberry, American elm, Colorado spruce*

4 – Very High: Large sized tree with branching or internal wood issues, *e.g., cottonwood, Siberian elm, silver maple, silver/white poplar, globe & golden willow*

Action (F)

1 – Reevaluate next inspection cycle: Determined after discussions with tree owner

2 – Reevaluate next growing season:

3 – Mitigation: Any action applied to tree to reduce risk, e.g., pruning, cabling, bracing

4 – Remove: Inform the tree owner how quickly the tree should be removed

CTC Tree Risk Assessment, Version 16.2

COLORADO TREE COALITION

Tree Risk Assessment Definitions

Version 16.2

Classes	Risk Value	Rating Criteria
Likelihood of Failure	1	**Improbable**
	2	**Possible**
	3	**Probable**
	4	**Imminent**

Improbable (1) – The tree or branch is not likely to fall during normal weather conditions and may not fail in many severe weather conditions within the specified time frame.

Examples:

- Minor <2" diameter branch or crown dieback
- Minor <20% defects or wounds in branches, trunk or root collar

Possible (2) – Failure could occur, but is unlikely during normal weather conditions within the specified time frame.

Examples:

- Stem decay within safe shell limits (1" of sound wood for each 6 inches of shell diameter)
- Cracks without decay
- Defects affecting 30-40% of the tree's circumference
- Crown damage or breakage: hardwoods <50%, pines <30%
- Weak branch union, major branch or co-dominant stem with included bark
- Stem girdling roots, <40% of circumference with compressed wood
- Root damage, <40% of roots damaged within the critical root zone

Probable (3) – Failure may be expected under normal weather conditions within the specified time frame.

Examples:

- Stem decay or cavity at or exceeding safe shell (1" of sound wood for each 6 inches of shell diameter)
- Cracks in contact with soil or other defects
- Defects affecting >40% of the tree's circumference
- Crown damage or breakage: hardwoods >50%, pines >30%
- Weak branch union with crack or decay
- Stem girdling roots, >40% of circumference with compressed wood
- Root damage, >40% or roots damaged within the critical root zone
- Leaning tree with recent root breakage or soil mounding, crack or extensive decay
- Dead tree – standing dead tree **without** other significant defects

Imminent (4) – Failure has started or is most likely to occur in the near future, even if there is no significant wind or increased load. This is a rare occurrence for a risk assessor to encounter, and it may require action to protect people from harm.

Examples:

- Stem decay exceeding safe shell limits **and** severe crack
- Cracks when a stem or branch is split in half
- Defects affecting >40% of circumference or critical root zone **and** extensive decay or cracks
- Weak branch union with crack **and** decay
- Leaning tree with recent root breakage or soil mounding **and** a crack or extensive decay
- Leaning tree hung up or caught in adjacent tree
- Branches with a crack or hanging branches >3 inches
- Dead trees: standing dead **with** other defects such as cracks, hangers, extensive decay or root damage
- Visual obstruction
- Physical obstruction of pedestrian or vehicular traffic

Risk Assessment Rating Criteria reprinted with permission from International Society of Arboriculture "Tree Risk Assessment BMP's."

Tree Risk Assessment Definitions

Version 16.2

Classes	Risk Value	Rating Criteria
Likelihood of Target Impact	1	**Very Low**
	2	**Low**
	3	**Medium**
	4	**High**

Very Low (1) – The chance of the failed tree or branch impacting the specified target is remote. The failure may be in a low use area, or within a moderate use area on the opposite side of regular usage.

Example:

- Branches or parts of the tree that would fall away from a sidewalk or street, into an open area with no human exposure or impacting targets with little value

Low (2) – It is not likely that the failed tree or branch will impact the target. The failure may be in a low use area, or within a moderate use area in the presence of other trees or structures protecting valued targets.

Example:

- Branches or parts of the tree that would fall into adjacent trees or away from the assessed tree, or a constant target that is well protected from the assessed tree

Medium (3) – The failed tree or branch may or may not impact the target, with nearly equal likelihood.

Example:

- Branches or parts of the tree that would fall into the target zone near or partially impact the target, or a constant target that is not protected from the assessed tree

High (4) – The failed tree or branch will most likely impact the target. The failure will fully impact valued targets.

Example:

- Branches or parts of the tree that would fall onto the target zone

Risk Assessment Rating Criteria reprinted with permission from International Society of Arboriculture "Tree Risk Assessment BMP's."

COLORADO TREE COALITION

Tree Risk Assessment Definitions

Version 16.2

Classes	Risk Value	Rating Criteria
Consequences of Failure and Impact	1	**Negligible**
	2	**Minor**
	3	**Significant**
	4	**Severe**

Negligible (1) – low-value property damage or disruption that can be replaced or repaired, and do not involve personal injury

Examples:

- Fencing
- Understory plantings
- Storage sheds
- Individual residence utility hookups

Minor (2) – low to moderate property damage or a small disruption to traffic or communication or other utilities on a neighborhood basis

Significant (3) – property damage of moderate-to-high value, considerable disruption, or personal injury

Severe (4) – serious personal injury or death, damage to high-value property, or disruption of important activities

Risk Assessment Rating Criteria reprinted with permission from International Society of Arboriculture "Tree Risk Assessment BMP's."

COLORADO TREE COALITION

Tree Risk Assessment Definitions

Version 16.2

Classes	Risk Value	Rating Criteria
Target	1	**Low Use**
	2	**Moderate Use**
	3	**High Use**
	4	**Very High Use**

Low Use (1) – is low or moderate length time of human exposure within the impact zone of the rated tree. This includes the actual period of time spent (occupied) in relationship to a given time period used for all targets. Concern should begin with human activity, followed by value of non-human targets.

Transportation	**Occupancy**	**Tree Resource**
Bicycle paths	Business districts	High pollen species
Local streets	Churches	Low risk species
Social trails	Commercial districts	Newly planted trees
	High density housing	Restricted root zones
	Pocket parks	Surface roots

Moderate Use (2) – is moderate to high length time of human exposure within the impact zone of the rated tree. This includes the actual period of time spent (occupied) in relationship to a given time period used for all targets. Concern should begin with human activity, followed by value of non-human targets.

Transportation	**Occupancy**	**Tree Resource**
Collector streets	Bus stops	Anecdotal failure patterns
Developed trails	Drive through campgrounds	Anecdotal high maintenance
Local detour routes	High density neighborhoods	Construction within root zone
Pedestrian paths	Neighborhood parks	High maintenance trees
School crosswalks	Public safety area	Moderate risk species
Traffic lights	Recreational centers	Obstructed traffic signs
		Obstructed visibility
		Root conflicts
		Thorns

High Use (3) – is high to very high length time of human exposure within the impact zone of the rated tree. This includes the actual period of time spent (occupied) in relationship to a given time period used for all targets. Concern should begin with human activity, followed by value of non-human targets.

Transportation	**Occupancy**	**Tree Resource**
Arterial streets	Medical offices	Recent underground construction
Detour routes	Picnic area	Edge trees
Snow routes	Playgrounds	Forest cutouts
Maintained trails	Recreation centers	High risk species
Traffic signs	Schools	Problem tree species
	Sports fields	

Very High Use (4) – is very high length time of human exposure within the impact zone of the rated tree. This includes the actual period of time spent (occupied) in relationship to a given time period used for all targets. Concern should begin with human activity, followed by value of non-human targets.

Roadway	**Use**	**Tree Resource**
Emergency access routes	Emergency/medical facilities	Confirmed failure patterns
Handicap access areas	High density populations	Confirmed high maintenance
Main Street	Paid permitted use	Construction within root plate
School Zones	Regional parks	Historical storm damage
	Senior housing/centers	Over-mature trees
		Past risk report history
		Very high risk species

Risk Assessment Rating Criteria reprinted with permission from International Society of Arboriculture "Tree Risk Assessment BMP's."

COLORADO TREE COALITION

Tree Risk Assessment Definitions

Version 16.2

Classes	Risk Value	Rating Criteria
Species	1	**Low**
	2	**Moderate**
	3	**High**
	4	**Very High**

Low (1) – trees that are naturally low (size) growing, strong branching habits, and have a good ability to compartmentalize defects.

Examples:

- Alder, Mountain
- Birch, River
- Cherry
- Goldenrain Tree
- Hawthorn spp
- Juniper
- Maple
  - Amur
  - Rocky Mountain
- Oak, Gambel
- Peach
- Pine
  - Bristlecone
  - Mugo
  - Pinon
  - Limber
- Plum

Moderate (2) – medium (size) growing trees, good branching habits, and have a good ability to compartmentalize defects.

Examples:

- Apple spp
- Aspen, Quaking
- Birch
  - Paper
  - Weeping
  - White
- Crabapple, spp
- Douglas-Fir
- Fir, White
- Honeylocust
- Horse Chestnut
- Hornbeam, spp
- Lilac, Japanese Tree
- Linden, Littleleaf
- Mountain Ash
- Mulberry spp
- Oak
  - Red
  - White
- Ohio Buckeye
- Pine
  - Austrian
  - Lodgepole
  - Ponderosa
  - Scots
- Planetree
- Redbud
- Russian Olive
- Sycamore
- Tree-of-Heaven
- Walnut
  - Black
  - English
- Willow
  - Corkscrew

High (3) – large (size) growing trees, moderate branching habits, and have a fair ability to compartmentalize defects.

Examples:

- Ash
  - Green
  - White
- Catalpa
- Coffeetree, Kentucky
- Elm
  - American
  - English
  - Rock
- Hackberry
- Locust, Black
- Maple
  - Norway
  - Red
  - Sugar
- Pear, Ornamental
- Poplar
  - Bolleana
  - Lombardy
- Spruce
  - Colorado
  - Engelmann
  - Norway
  - White
- Willow
  - Black

Very High (4) – large (size) growing trees, poor branching habits, and have a poor ability to compartmentalize defects.

Examples:

- Cottonwood
  - Lanceleaf
  - Narrowleaf
  - Plains
  - Siouxland
  - Hybrid
- Elm, Siberian
- Linden, American
- Maple, Silver
- Poplar, Silver/White
- Willow
  - Crack
  - Globe
  - Golden
  - Peachleaf
- Willow
  - Weeping
  - White

Risk Assessment Rating Criteria reprinted with permission from International Society of Arboriculture "Tree Risk Assessment BMP's."

COLORADO TREE COALITION

Tree Risk Assessment Definitions

Version 16.2

Classes	Risk Value	Rating Criteria
Action	1	**Re-evaluate Next Inspection Cycle**
	2	**Re-evaluate Next Growing Season**
	3	**Mitigation**
	4	**Remove**

Re-evaluate Next Inspection Cycle (1) – usually an agreed upon time frame during communication between evaluation team and the client, put cycle in years (e.g., one, two, five, etc.) unless otherwise agreed upon with client.

Re-evaluate Next Growing Season (2) – usually within the middle of the growing season of the year following inspection. This will allow the assessor to observe health conditions of the tree such as live crown and twig growth.

Mitigation (3) – the process of diminishing the risk without removing the entire tree.

Remove (4) – remove the tree when current mitigation procedures are unlikely to diminish the risk, inform the tree owner

Risk Assessment Rating Criteria reprinted with permission from International Society of Arboriculture "Tree Risk Assessment BMP's."

February 6, 2019

Mr. John Hasche
9655 E Center Avenue #5D
Denver, Colorado 80247

COLORADO STATE FOREST SERVICE
COLORADO STATE UNIVERSITY
Gunnison Field Office
P.O. Box 1390
Gunnison, CO 81230
Phone: (970)641-6852
Fax: (970)641-0653

Dear Wildwood Townhomes Association,

On Wednesday January 23rd, 2019 a re-inventory of all mature trees within the Associations common ground was conducted by the Colorado State Forest Service's Urban and Community Forester and ISA Certified Arborist, Vince Urbina, as well as Gunnison Field Forester, Mike Tarantino. This acted as a follow up inventory initially conducted by the Colorado State Forest Service in 2014. During the January 23rd, 2019 inventory the assessment of 68 living narrowleaf cottonwood, one living Englemann spruce, one living blue spruce, one living willow, and one dead narrowleaf cottonwood was conducted. Every tree was assessed a hazard rating through the Colorado Tree Coalition's Tree Risk Assessment Rating System (please see the attached spreadsheet and map for individual hazard ratings, also attached is a glossary defining the CTC Tree Risk Assessment Ratings). Note that trees with more significant hazard were given a higher prioritized rating.

Listed here is a summary of observations noted during the 2019 Tree Inventory conducted at the Wildwood Townhomes Association:

Narrowleaf Cottonwood Observations-

- Tree #1, a 38" diameter standing dead tree, has been recommended for removal. This tree is dead with decay making the likelihood of failure imminent and due to the trees location at the entrance of the community it would have a target in a very high use area. This individual received the maximum CTC Hazard Rating of 144.
- Prune dead wood. A majority of the mature narrowleaf cottonwood within the Wildwood Townhomes Association had a significant amount of overhanging dead wood. On many of these trees, the dead wood was overhanging high use areas. The most common mitigation action recommended during the assessment was defective pruning to remove dead wood that is creating an overhead hazard.
- Ten individual cottonwood trees that were inventoried have codominant stems. Trees with codominant stems have two or more leaders (main stems) that emerge from the same location on the trees trunk. When the branch angles between these stems are narrow and the union of the two stems is in the shape of a "V" the likelihood of failure is increased. Codominant stems with this narrow branch angle have less structural holding wood due to an inhibition of proper form development, there is usually included bark, and this union has a predisposition to decay. Trees with codominant stems can be managed through cabling or bracing the multiple stems to increase support, or by the removal of all but one main leader through pruning. It is important to note that on mature trees the pruning of large diameter codominant stems could lead to

large wounds that are susceptible to decay or may result in an unbalanced crown that could lead to structural failure.

- Although decay on the mainstem of any of the trees within the community was not noted to the point that exceeds a safe shell limit, it is very likely that there is compartmentalized decay in all of the narrowleaf cottonwood in the Wildwood Community. Unlike animal tissue that is regenerated after an injury, a tree compartmentalizes an injury under subsequent growth. If a fungal or bacterial infection is introduced into this injury, rot and decay will persist in this compartment. Previous pruning cuts that did not heal within the community are all likely to have some level of compartmentalized decay, which could lead to structural failure. Injuries from pruning cuts that are likely to have decay are trees that have been top pruned, have had large diameter branches pruned, or trees that have had poor pruning cuts which were not flush with the branch collar. Trees that have been pruned inside the branch collar have damage to their branch protection zone and pruning cuts outside the branch collar leave stubs, both of these pruning cuts can prevent pruning injuries from healing and can provide an entry point for disease.
- Seven trees were observed with heavy epicormic branching. Overpruning of live branches can stimulate a tree with strong vigor to generate numerous new stems. This regeneration of stems, known as epicormic branching, can lead to structural vulnerabilities if the branching is heavy.
- There is a universal presence wetwood infection in cottonwood throughout the City of Gunnison. This symptom can be host to various bacteria, and can be easily identified as a white crust around previous pruning cuts. In conjunction with the bacteria colonizing wetwood, adjacent sapwood can be killed. Although tree mortality is unlikely the impacts on adjacent sapwood can prevent injuries from healing over, offering an entry for decay.

Spruce Observations-

- No visible sign of disease or decay was noted on the spruce within the Wildwood Townhomes Association that would indicate a hazard, but it is important to note that this species has a shallow root system. These trees are vulnerable to whole tree failure when the ground is saturated.

Resources

Listed below are additional resources that can be beneficial to the Wildwood Townhomes Association while managing trees within the community-

Colorado State University Cooperative Extension Gardening Series- Bacterial Wetwood
https://static.colostate.edu/client-files/csfs/pdfs/bacterial_wetwood.pdf

Colorado State Forest Service Presentation- Basic Pruning Techniques
https://csfs.colostate.edu/media/sites/22/2017/03/ECCFC_LVDIST_2017_d1.pdf

Colorado State University Extension Colorado Master Gardener- Pruning Cuts
https://static.colostate.edu/client-files/csfs/pdfs/613.pdf

Colorado State University Extension Colorado Master Gardener- Pruning Mature Shade Trees

https://static.colostate.edu/client-files/csfs/pdfs/616.pdf

University of Tennessee Extension- Cabling, Bracing and Other Support Systems for Trees
https://extension.tennessee.edu/publications/Documents/SP659.pdf

If you have questions or would like additional information on forest management, please contact the Gunnison Field Office at 970-641-6852.

Sincerely,

Mike Tarantino
Forester
Colorado State Forest Service
Gunnison Field Office
(Phone) 970-641-6852
Email: Mike.Tarantino@colostate.edu