



State of Utah

SPENCER J. COX
Governor

DEIDRE M. HENDERSON
Lieutenant Governor

Department of Government Operations Division of Risk Management

JENNEY REES
Executive Director

Brian Nelson
Division Director

To: Jeff Rasmussen, Director, Utah Division of State Parks
From: Karen Peterson, State Liability Prevention Specialist, Utah Division of Risk Management
Date: August 10, 2022
Re: Tree Evaluation, Proposed Campground Soldier Hollow

On July 1, 2022, I met with Laurie Backus, Region Manager, and Richard Hawkins, Facilities Coordinator, to evaluate the trees in the proposed campground at Soldier Hollow. I found 12 trees in the campground with evidence of decay and severe damage, including dead limbs, broken large branches, horizontal and vertical fractures, scars from fallen branches, cavities, and rodent infestation. Light is visible through several of the tree trunks, which indicates that the subject trunks may not have the structural integrity to keep the trees from failing. Photos are attached that show some of the damage mentioned above. As you well know, if any of those trees or their substantial branches were to fall in the contemplated camping, they could cause serious death or injury to a person in the vicinity thereof.

The Division of Risk Management agrees with all of the recommendations included in the attached arborist report, and also recommends that the trees be removed to provide safety and protection to everyone who will access this recreational area.

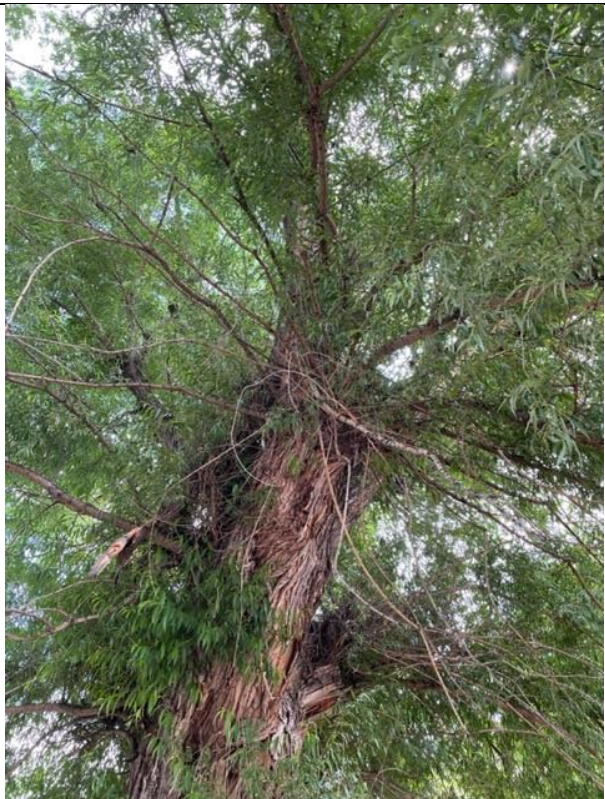
It must not be assumed that every unsafe condition or code requirement was discovered during this inspection. This report contains a review and recommendations undertaken pursuant to Utah Code Annotated 63A-4-206 and is thereby protected by law. These findings may not be admitted into evidence or used for any other purpose in any action for damages arising from any occurrence, at any location mentioned in this report.

A handwritten signature in black ink that reads "Karen Peterson".

Karen Peterson
State Liability Prevention Specialist
Utah Division of Risk Management

Cc: Brian Nelson, Director, Division of Risk Management
Marilee Richins, Deputy Director/PIO, Department of Government Operations









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Independent Tree evaluation by ISA Certified Arborist K. Mitch Jones. For three Black Willow trees located east of The Chalet in proposed future campsite in Midway Utah.

Two independent ISA Certified Arborist have inspected the three trees in question and agree on the statements below

- Tree #1 8ft DBH 60ft Black Willow (*Salix nigra*) Failure Potential - High Size of part - 1" to 30" Target rating - Frequent
 - Upon inspection of tree number one, it has been noted that the tree has significant decay at base and again showing light through center of main stem at 25 ft. this tree has been subject to several breaks and failures over the years resulting in several open fractures and cavities. This tree's response has been to produce excessive water sprout growth, adding additional weight to an already stressed and damaged canopy. Under the current plan of construction of a camping site, roadway and high traffic areas within the target zone. my recommendation is full removal.
 - Potential to Stabilize and maintain a standing tree: Possible at extreme cost With extensive Pruning, Reduction, Cabling, footing and support work, this tree could potentially be left standing onsite. Exclusionary zones would be required to eliminate exposure to critical areas. evacuation standards would be required during extreme weather events, and current construction plan would need to be altered to eliminate impact of Critical Root Zone.
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- Tree #2 8ft DBH 60ft Black Willow (*Salix nigra*) Failure Potential - Extreme Size of part - 1" to 30" Target rating - Constant
 - Upon inspection of tree number two, it has been noted that tree has extreme amount of decay from base and again showing light throughout center of main stem up to 25 ft. and continuing into lateral stems over 50ft. This tree has been subject to several breaks and failures over the years resulting in several open fractures and cavities. This trees response has been to produce excessive water sprout growth, adding additional weight to an already stressed and damaged canopy. This tree is showing signs of spiral fractures and significant damage above 30ft. Under the current plan of construction of a camping site, roadway and high traffic areas within the target zone. My recommendation is full removal. Potential to Stabilize and maintain a standing tree: Possible at extreme cost With extensive Pruning, Reduction, Cabling, footing and support work, this tree could potentially be left standing onsite. Exclusionary zones

would be required to eliminate exposure to critical areas. evacuation standards would be required during extreme weather events, and current construction plan would need to be altered to eliminate impact of Critical Root Zone.

- Tree #3 12ft DBH 60ft Multistem Black Willow (*Salix nigra*) Failure Potential - Extreme Size of part - 1" to 30" Target rating - Constant
- Upon inspection of tree number three, it has been noted that tree has extreme amount of decay from base and again showing light throughout center of main stem up to 25 ft. and continuing into lateral stems over 50ft. This tree has been subject to several breaks and failures over the years resulting in several open fractures and cavities. This trees response has been to produce excessive water sprout growth, adding additional weight to an already stressed and damaged canopy. This tree has had two significant failures over the years with two of the three main stems of the tree are resting on the ground. Though the fallen stems are living they play a significant role in the current stability of the tree. With the extreme level of decay in the center of the canopy the third and standing stem is highly likely to fail. Under the current plan of construction of a camping site, roadway and high traffic areas within the target zone. My recommendation is full removal. Potential to Stabilize and maintain a standing tree: Possible at extreme cost With extensive Pruning, Reduction, Cabling, footing and support work, this tree could potentially be left standing onsite. Exclusionary zones would be required to eliminate exposure to critical areas. evacuation standards would be required during extreme weather events, and current construction plan would need to be altered to eliminate impact of Critical Root Zone.
- **What is the average lifespan of these species of trees?** - *The estimated lifespan of a Black willow averages 65 years with a typical range of 40-100 years*
- **Do we have a way of knowing how old the three trees are?** *Not without taking a core sample. However Based on history of the location I would estimate the three trees are close to 100 years old*
- **How much water do trees of this species use? Are the trees we plan on planting more or less waterwise?** *Black Willow Trees are Always Thirsty! And need a lot of water. Many of the trees in the plan are much more "waterwise"*
- **Do you have any trees to recommend for our purposes besides the trees we have planned?** *Not at this time, the trees listed are all very reasonable choices for replacement.*
- **What are the biggest safety concerns with the existing trees?** *The safety concerns are numerous. Starting with extreme potential of failure of branches ranging from 1 inch in diameter up to 30 inches in diameter. Potentially causing minor harm up to and including death to the general public. Property*

damage if structures are allowed (whether permanent or temporary) with the critical failure zone.

- **Can the report give a little more detail about what these trees would look like should we go the route to keep them standing?** *The trees would require extreme measures to keep standing, this would include engineering vertical braces, lateral stays, cabling within the canopy after the trees have been dramatically reduced to less than later weight.*
- **Extreme cost but what would the pruning, cabling, and exclusionary area mean?** *Costs could potentially reach \$100,000 per tree and would require a fenced off "exclusionary Zone" that the general public could not enter. And the trees would have to be viewed from a undetermined safe distance The trees Will Not look as they do now. When the preservation work is complete, they will take on a very different look and may not be aesthetically pleasing.*
- **Could we include the number of arborists that evaluated them?** *I believe you said it was two? Two independent ISA Certified Arborist have inspected the three trees in question and agree on the statement above.*
- *Nine additional Willow trees running east along canal are in equally or considerably worse condition than the three trees that have been evaluated and complete removal is also recommended.*

K. Mitch Jones
ISA Certified Arborist
801-484-8733