



# Donner Summit

*Conservation Assessment  
and  
Planning Principles*

November 2007

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## Purpose of this Report

This report summarizes the existing resources and reviews development issues on Donner Summit. Its findings are clear:

1. Donner Summit is a treasured Sierra landscape of immense value.
2. Donner Summit lacks the adequate infrastructure and community support for large-scale development.

Looking forward, this report offers a set of Planning Principles to guide future decisions on conservation and development on Donner Summit.

This report is a collaborative effort of Sierra Watch and Sierra Club. It is based on research conducted by a consultant team consisting of Terrell Watt, Planning Consultant, Michael White, Conservation Biology Institute, Robert Coats, Hydroikos Ltd, and Jared Ikeda, Ikeda Consulting.

Our assessment work is ongoing.



Please contact Tom Mooers, Executive Director of Sierra Watch and the report's principal author, with any comments, questions, or suggestions.

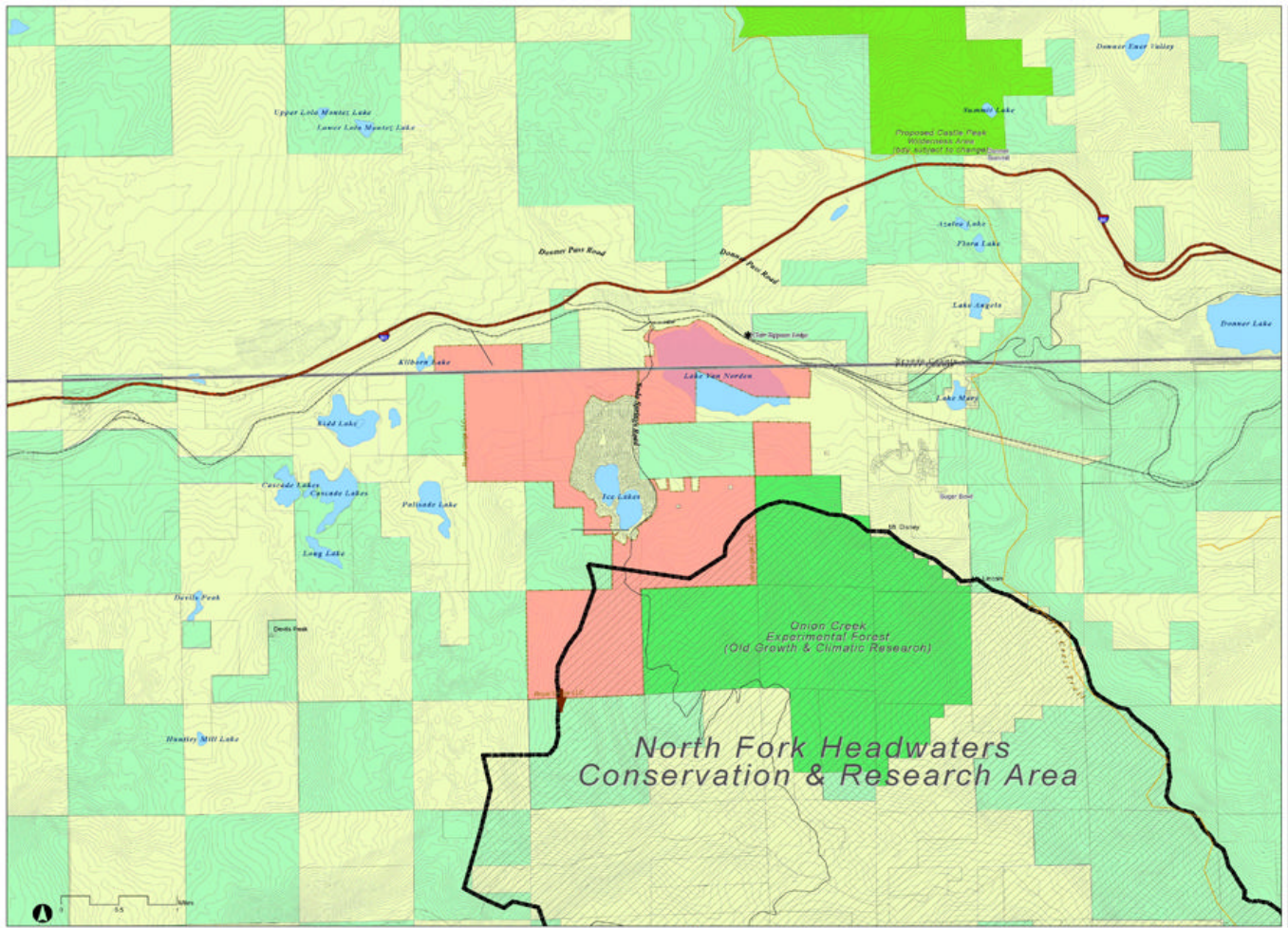
Donner Summit straddles two counties and includes an array of ecosystems – it may be better defined as an experience rather than by geography. For the purposes of this report, we focused our efforts on the area extending south, east, and west from the town of Soda Springs, thereby including important headwaters of the American and Yuba river systems, as well as existing communities and recreational resources.

The consultant team gathered available data and conducted a series of interviews and site visits. Mapping has been included for illustrative purposes based on publicly available data sources but has not been verified through field work.



*Meadow below Razorback Ridge*

This report does not attempt to provide the ultimate blueprint for Donner Summit. Rather, it seeks to assess the existing context for land use decision-making and inform collaborative discussions on the future of one of the Sierra's most treasured landscapes.



**DRAFT**  
Donner Summit  
Preliminary Assessment

**Public / Private  
Ownership Pattern**

- Legend**
- North Fork Headwaters Conservation & Research Area
  - Onion Creek Experimental Forest
  - Castle Peak Trapped Wilderness Area
  - County City
- PRIVATE / PUBLIC OWNERSHIP**
- Royal George LLC Parcels
  - Private Lands
  - State National Forest
  - County City
- Highways & Roads**
- Interstate Highway
  - State Highway
  - US Highway
  - Local Road
  - Railroad
  - Pacific Crest Trail
  - Donner Park Trails



## I. Donner Summit Values and Resources

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In 1846, Edwin Bryant crossed the Sierra on the back of a mule. He paused to take in the view of Donner Summit, describing it as “inexpressibly comprehensive, grand, and picturesque.” It still is today.

For centuries, Donner Summit has captivated travelers, visitors, and residents



*Van Norden Lake and Meadow*

alike. That sense of place is the sum total of its natural heritage, its cultural history, and an ongoing commitment to conservation.

***Planning Principle: Protect the unique sense of place on Donner Summit.***

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### Natural Heritage

Donner Summit owes its stunning scenery to its unique and elevated location on the crest of the Sierra.

The region ranges in elevation from about 6,500 to 8,000 feet, characterized ecologically as upper montane forests and meadows transitioning to subalpine at its highest elevations.

The high mountain peaks – Mt. Lincoln, Mt. Disney, Castle Peak, Donner Peak, Mt. Judah, Devils Peak – provide a magnificent backdrop to the lakes, streams, meadows, and forests.

Donner Summit plays an important role in the surrounding Sierra environment as a bridge between existing and proposed wilderness areas – Granite Chief and Castle Peak – and as the headwaters for the American, Truckee, and Yuba Rivers.

***Planning Principle: Recognize the importance of the Donner Summit region to the broader Central Sierra and downstream ecosystems.***

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## **Biological Resources**

The landscape of Donner Summit hosts an incredible array of wildlife habitat, including creeks and lakes, mountain

meadows, old growth forests, and important wildlife corridors.

No complete field study exists, but initial assessments reveal a wealth of Sierra wildlife, from the Mountain Yellow-legged frog to the Pine Marten. Donner Summit is home to sixteen species of amphibians, 20 species of mammals, and at least 100 species of birds.

Important species of birds include Northern Goshawks, Bald Eagles, Golden Eagles, and Spotted Owls. Notably, the native willows and meadows of Summit Valley and along McKay Creek, in the heart of Donner Summit, provide habitat for the state-listed endangered willow flycatcher.

Other special-status animals that are known to occur in the Donner Summit region include: Harlequin Duck, Black Swift, Yellow Warbler, and probably Wolverine, Pacific Fisher, and Sierra Nevada Red Fox.

A variety of vegetation communities including montane meadows, riparian habitats, montane chaparral, Sierran mixed conifer forest, lodgepole pine forest, white fir forest, and red fir forest occur at the Summit. Diverse flowering perennials, many of which are considered sensitive, can be found scattered through these habitats, particularly in open areas.

More than 500 species of vascular plants, representing more than one third of all plant families in California, are known to occur in the Donner Summit region. At least sixteen special-status plants species thrive on Donner Summit, including the starved daisy, long-petaled lewisia, and the Donner Pass buckwheat.

Donner Summit can seem like a hostile environment to winter travelers. But the region – and that diverse flowering plant population – provides habitat for 115 different species of butterflies. According to Dr. Art Shapiro, of UC Davis, "Donner, for

area, has one of the richest butterfly faunas documented in North America."

***Planning Principle:  
Protect the wide array of habitat  
and the incredible range of  
biodiversity on Donner Summit.***



*South Yuba River Headwaters*

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## Wetlands and Meadows

The high mountain meadows of Donner Summit provide more than stunning scenery. They play an important role in the region's complex system of hydrologic processes, providing water quality protection, flood regulation, and species habitat.



*Spring above Palisade Lake*

An incredible resource in itself, Van Norden Meadow is the largest wetland above an elevation of 6700 feet in Placer or Nevada counties. Other important wet meadow areas include those along McKay Creek in the American River watershed.

***Planning Principle: Protect the wetlands and meadows of Donner Summit.***

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## Forests

Outside our National Parks, one of the only remaining large stands of virgin, old-growth forests in California are found in the Donner Summit region. These forests have developed over centuries to include large-diameter, old-growth trees, snags, and down logs. Increasingly rare in the northern Sierra, they provide essential habitat for important species such as the California Spotted Owl, Northern Goshawk, and Pine Marten.

In 1996, the Sierra Nevada Ecosystem Project mapped and ranked the integrity of forests on public lands; Donner Summit forests earned a rank of 4 – the highest ranking in the northern Sierra region.

The United States Forest Service recognizes the importance of Donner Summit forests and manages the resources accordingly. Much of the public land in the region is designated as *Area of Late Successional Emphasis*; over 3,000 acres of old growth fir and incense cedar are protected as the *Onion Creek Experimental Forest*, and more than 1,000 acres of mountain hemlock and red fir forest are protected in the Needle Lake/Lyon Peak Research Natural Area

***Planning Principle: Expand permanent protection of Donner Summit forest resources.***



*Lake Van Norden*

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## Water Resources

The clear seasonal streams and subalpine lakes of Donner Summit are some of its most appreciated resources. The communities of Serene Lakes and Palisades Lake derive their sense of community – as well as their names – from Donner Summit lakes.

And the importance of the region's water resources extends well beyond the summit itself – these are the headwaters for some of California's most important river systems.

Donner Summit is the great divide between three important watersheds in the Sierra – the Yuba River, American River, and Truckee River. These rivers are invaluable in delivering water to downstream customers – from Reno to the East and into the Sacramento Valley and Bay Delta.

State and federal law make a substantial commitment to the integrity of both the North Fork of the American and the South Yuba River; their aesthetic, scenic, historic, archeological, and scientific features are protected under *Wild and Scenic* status.

***Planning Principle: Improve and maintain the water quality of Donner Summit's lakes, creeks, and rivers.***

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## Cultural Importance

Donner Summit is the most important cultural crossroads of the American West. It's home to a stunning history – from the spearpoints and rock art of the Martis Indians and wheel ruts of the first wagon trains, to the snowsheds of the transcontinental railway and the paved contours of Interstate 80.

Donner Summit has also long served as an important destination in its own right – especially among day hikers, backpackers, and skiers. Recreationists who seek out Donner Summit, whether on the Pacific Crest Trail or the slopes of Sugar Bowl, are likely looking for an outdoor experience based on natural splendor – not on commercial amenities.

The trails provide unparalleled opportunities to take in Sierra wilderness. The ski resorts have a vintage feel – they

might not have malls, but they have an undeniable connection to the foundation of skiing in the Sierra as pure winter sport.

***Planning Principle: Preserve the history and scenery of Donner Summit as the portal to California and as the region's primary recreational and economic resource.***

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## **Challenging Climate**

The Donner Summit climate is as dramatic as its scenery. Winter snowfall, infamous to emigrants and famous among skiers, averages more than 34 feet per year.

Historically, that snowfall provides a winter wonderland for skiers and, when it melts, water for Californians and Nevadans downstream. But climate change over the next century will affect precipitation patterns on Donner Summit and, in turn, impact everything from potential water supplies and sewage treatment options to catastrophic wildfire frequency.

Any negative impacts of future development would likely be exacerbated by climate change. And the ski economy could destabilize with a decrease in snowfall in the next few decades.

***Principle: Recognize the challenging climate on Donner Summit and the impact of climate change on the region's landscape and resources.***

## II. Donner Summit Development Issues

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In large part, the future of Donner Summit and its incredible resources is undetermined. Much of its stunning landscape is privately owned; some of it will be proposed for major development. But the challenging alpine location, a lack of urban infrastructure, existing resource protection policies, and a dearth of community support for major development place undeniable constraints on resort and residential projects.

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### Existing Development

There is, of course, some existing development on Donner – its proximity to transportation corridors has made it a likely stop in the Sierra.

Historically, commercial development has focused on Donner Pass Road, and the economy has been dominated by the ski industry.

Most second homes are found in the Serene Lakes community, with additional vintage enclaves, including Sugar Bowl and The Palisades.



*Beach at Serene Lakes*

The record of land use decision-making on Donner Summit is not perfect. The region might be better off without all of its dams and

subdivisions, but it has retained its incredible natural values and a rustic Sierra culture.

Locals certainly appreciate it – in a recent survey, 92% of community members report having a “highly positive opinion of the quality of life in the area.”

***Planning principle: Protect the values of the existing Donner Summit communities.***

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## **Water Supply**

The great irony of water supplies on Donner Summit is that so much falls on the region as snow, but so little is held for local use.

Each drop of Donner Summit water is allocated to an array of water districts. Those water districts use the water to serve existing residents, maintain recreational resources, and provide important habitat.

Downstream, the importance of the Donner Summit watershed cannot be overstated: again, the region is a source for the American, Yuba, and Truckee River systems.

Water that might appear locally as a surplus – the water that flows from Serene Lakes and down Serena Creek, for example – is an important part of local fish habitat and the downstream water supply to the North Fork American River. And the impact on climate change on precipitation patterns will further constrain water supplies.

New sources for water supply and new opportunities for increased storage are problematic at best. Large supplies of groundwater appear unattainable, and new wells could impact downhill water resources.

Dredging of existing lakes, such as Serene Lakes, would come at great community, recreational, and hydrological costs. Damming of Donner Summit creeks and rivers would impact the headwaters of important river systems; raising the level of Lake Van

Norden would destroy the most important high mountain meadow and wetland complex in the region.

***Planning Principle: Size Donner development to existing water sources and projected impacts of climate change.***



*Serena Creek Spillway*

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## **Wastewater Treatment**

Water that flows *in* to residential development has to flow *out* as well. But, when it comes to production of major amounts of new sewage on Donner Summit, there's nowhere to treat it, and there's nowhere to put it.

Currently, existing development at the Summit is served by both septic systems and a wastewater treatment plant. Additional septic systems on Donner Summit could present a severe threat to water quality; treatment and disposal are problematic as well.

Sewage from Soda Springs, Sugar Bowl, and Serene Lakes is treated at a wastewater treatment plant operated by the Donner Summit Public Utility District at Soda Springs. Tertiary-treated effluent (with nitrogen but not phosphorus removed) is discharged to the South Yuba River from October to June; it is sprayed onto a 165 acre slope at Soda Springs Ski Area from July to September.

The plant operates at or near capacity. In the Serene Lakes subdivision, the shortage of sewer connections has led to moratoriums on build out of existing lots – the last one running from 2000-2003. Planned expansion is designed to meet only current lots and approved development in existing communities.

Any expansion of residential and resort development would require a combination of increased treatment capacity, increased effluent flows into the Yuba or other rivers, and, possibly, increased acreage for effluent spray fields.

The critical issue for the Yuba – and communities downstream – is the extent to which its flow is generated by free-flowing snowmelt or by effluent.

Stormwater runoff presents additional threats to water quality. It's the unfiltered water that flows from impervious surfaces, delivering pollutants from roads and driveways to creeks

and lakes. Because of its diffuse sources, it is generally impossible to mitigate the damage.

Similarly, erosion from ski runs, landscaped gardens, and other sources could cloud local lakes with increased sedimentation.

***Planning Principle: Protect Donner Summit water quality from increased sewage outflows and polluted stormwater runoff.***

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## **Transportation and Roads**

No one wants to spend their time in the Sierra stuck in traffic. But, increasingly, visitors are spending more time in their cars – especially on peak ski days. Donner Summit, with its limited existing infrastructure, presents obvious traffic challenges.

Travelers to and from Serene Lakes have only one way out – Soda Springs Road. All Donner traffic gets funneled out onto Donner Pass

Road. And visitors also contribute to regional gridlock on Interstate 80.

On peak ski days, traffic can backup six miles, creating gridlock on the Summit for hours at a time.

It's unlikely that increased infrastructure would allow us to build out of

existing traffic demand, let alone create capacity for new traffic. Expanded capacity might increase the flow at a given intersection, but it would likely shift



*Sierra Gridlock (Caltrans)*

bottlenecks downstream and, also, pump more vehicles onto community streets.

***Planning Principle: Prevent additional traffic from clogging regional roadways and diminishing the quality of the Donner Summit experience.***

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### **Fire Safety**

Catastrophic wildfire is an annual threat to Sierra communities. On Donner Summit, that threat is compounded by limited infrastructure – there is currently only one way out of Serene Lakes. And that threat will be exacerbated by climate change.

Of all the reasons to encourage responsible planning in the Sierra, fire danger is often the most compelling. As the *Sierra Nevada Alliance* makes clear in its 2007 report *Dangerous Development: Wildfire and Rural*

*Sprawl in the Sierra Nevada*, leap frog development in areas of limited infrastructure and high fuels put puts our homes and families at risk.

***Planning Principle: Prevent leapfrog development and ensure fire-safe planning.***

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## Commitment to Conservation

As noted above, there are significant public policy commitments to the resources of Donner Summit. The Forest Service recognizes and protects the old growth forest resources. Downstream, the American and Yuba Rivers are protected as *Wild and Scenic*. Other important conservation laws, such as the *Clean Water Act*, the *Endangered Species Act*, the *National Environmental Policy Act*, and the *California Environmental Quality Act*, ensure responsible decision-making on Donner Summit.



*North Fork American River Canyon*

Efforts by local residents to preserve Donner Summit include the *North Fork American River Research and Management Agreement*, a unique commitment by private landowners, the Forest Service, and the University of California to protect more than 19,000 acres – including the *Onion Creek Experimental Forest* – on the south side of Donner Summit.

The property borders Sugar Bowl and Royal Gorge property and includes the largest

stand of California old growth forest outside of the National Park system; the agreement is a great step towards conservation of the Donner Summit landscape.

***Planning Principle: Expand permanent protection of Donner Summit resources.***

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## Community Planning

Effective development decision-making fits into the context of a broader regional vision. On Donner Summit, major commitments to conservation have been made.

And there is a demonstrated community consensus on the importance of the region's landscape and recreational opportunities: 87% of Donner Summit community members cite either "Natural Environment", "Outdoor Activities", or "Rural Atmosphere" as what they like most about Donner Summit.

But there is still no agreed-upon blueprint for the area's future.

The future of major landholdings, including the 3,000 acre *Foster/Syme* holdings is still undetermined. Under the best planning circumstances, communities collaborate on a vision for a given area; that vision is codified in County Community and General Plans. For Donner Summit, a Community Plan does not exist



*Serena Creek*

and the relevant portions of the General Plans are woefully out of date.

Recent surveys demonstrate overwhelming support for conservation on Donner Summit. But that consensus is not codified into formal planning documents.

State law raises the stakes: there is no legal basis for approval of development projects for an area that does not include an up-to-date,

comprehensive, long-term plan. But the General Plans of the two Donner Summit counties, *Nevada* and *Placer*, lack a detailed, up-to-date depiction of Donner.

***Planning Principle: Collaborate with regional jurisdictions and local residents to create community vision for Donner Summit and update General Plans accordingly.***

## Summary of Planning Principles

Donner Summit is an incredible place. The *Planning Principles* in this report are designed to ensure it stays that way. For centuries, it's been a crossroads of the Sierra and a great Sierra destination. Now it presents a great opportunity to invest in our Sierra heritage.

Over 100 years ago, *California Spirit of the Times* magazine reported:

"The air has a fresh crispness about it that gives a new life to the visitor. It is a relief to look up to the stars, nowhere brighter than here, with only the dark pines closing in the distance."

It's up to us to ensure that, 100 years from now, future generations can share the same experience.



*Point Mariah*



## **Donner Summit Planning Principles**

*To protect the unique sense of place on Donner Summit*

### **Donner Summit Values and Resources**

1. Natural Heritage: Recognize the importance of Donner Summit to the broader Central Sierra and downstream ecosystems.
2. Biological Resources: Protect the wide array of habitat and the incredible range of biodiversity on Donner Summit.
3. Wetlands and Meadows: Protect the wetlands and meadows of Donner Summit.
4. Forests: Expand permanent protection of Donner Summit forest resources.
5. Water Resources: Improve and maintain the water quality of Donner Summit's lakes, creeks, and rivers.

6. Cultural Importance: Planning Principle: Preserve the history and scenery of Donner Summit as the portal to California and as the region's primary recreational and economic resource.
7. Challenging Climate: Recognize the challenging climate on Donner Summit and the impact of climate change on the region's landscape and resources.

### **Donner Summit Development Issues**

1. Existing Development: Protect the values of the existing Donner Summit communities.
2. Water Supply: Planning Principle: Size Donner development to existing water sources and projected impacts of climate change.
3. Wastewater Treatment: Protect Donner Summit water quality from increased sewage outflows and polluted stormwater runoff.
4. Transportation and Roads: Prevent additional traffic from clogging regional roadways and diminishing the quality of the Donner Summit experience.
5. Fire Safety: Prevent leapfrog development and ensure fire-safe planning.
6. Commitment to Conservation: Expand permanent protection of Donner Summit resources.
7. Community Planning: Collaborate with regional jurisdictions and local residents to create community vision for Donner Summit and update General Plans accordingly.