

**TOWN OF MOUNTAIN VILLAGE  
TOWN COUNCIL REGULAR MEETING  
THURSDAY MAY 17, 2018, 8:30 AM  
2nd FLOOR CONFERENCE ROOM, MOUNTAIN VILLAGE TOWN HALL  
455 MOUNTAIN VILLAGE BLVD, MOUNTAIN VILLAGE, COLORADO  
AGENDA**

	Time	Min	Presenter	Type	
1.	8:30				Call to Order
2.	8:30	60	Guglielmone Ruud	Informational	Telluride Regional Wastewater Treatment Plant Master Plan Implementation Update <b>P. 3</b>
3.	9:30	60	Reed/Mahoney	Legal	Executive Session for the Purpose of Receiving Legal Advice Pursuant to C.R.S. 24-6-402(b), and for the Purpose of Negotiations Pursuant to C.R.S. 24-6-402(4)e
4.	10:30	5			Break
5.	10:35	5			Public Comment on Non-Agenda Items
6.	10:40	5	Johnston	Action	Consideration of Approval of Minutes of the April 26, 2018 Regular Council Meeting <b>P. 7</b>
7.	10:45	20	Martelon	Informational	Marketing Telluride Inc. Quarterly Report <b>P. 12</b>
8.	11:05	20	Tuddenham	Action	Sheep Mountain Alliance Requests: <b>P. 34</b> a. Consideration of Approval of a Letter of Support for the GMUG Grand Mesa-Gunnison-Uncompahgre National Forests Wilderness Recommendations made by SMA, the Wilderness Society and Other Groups <b>P. 164</b> b. Consideration of Approval of a Letter of Support of the San Juan Mountain Wilderness Bill <b>P. 166</b>
9.	11:25	30	Mahoney	Work Session	Discussion on Public Comment Policy <b>P. 168</b>
	11:55	30			Lunch
10.	12:25	60	Swain	Informational Action	Finance: a. Presentation of the April 30, 2018 Business & Government Activity Report (BAGAR) <b>P. 172</b> b. Consideration of Approval of the March 31, 2018 Financials <b>P. 174</b> c. Goal Setting for 2019 Budget <b>P. 192</b>
11.	1:25	20	Haynes	Action	First Reading, Setting of a Public Hearing and Council Vote on an Ordinance Approving a Community Development Code (CDC) Amendment to CDC Section 17.5.6.C.3. Roof Material pursuant to CDC Section 17.1.7 Amendments to the Community Development Code <b>P. 193</b>
12.	1:45	15	Haynes A Benitez	Informational	Town Hall Subarea Monthly Update
13.	2:00	15	Haynes A Benitez	Informational	Village Center Subarea Monthly Update
14.	2:15	30	Council Members & Staff	Informational	Council Boards and Commissions Updates: a. San Miguel Watershed Coalition-Starr b. Colorado Flights Alliance -Jansen c. Transportation & Parking – MacIntire/Benitez d. Budget & Finance Committee –Caton/Gilbride e. Gondola Committee – Caton/Berry f. Colorado Communities for Climate Action – Berry g. San Miguel Authority for Regional Transportation (SMART)- Benitez/Caton/Binder h. Eco Action Partners – Berry/Binder i. Telluride Historical Museum- Berry j. Telluride Conference Center –MacIntire/Gilbride

					<ul style="list-style-type: none"> <li>k. Alliance for Inclusion – Berry</li> <li>l. Green Team Committee- Berry/MacIntire</li> <li>m. Telluride Tourism Board-Jansen</li> <li>n. Mayor's Update - Benitez</li> </ul>
15.	2:45	30	Broady Loebe Kjome Montgomery	Informational	Staff Reports: <ul style="list-style-type: none"> <li>a. Police Department <b>P. 203</b></li> <li>b. Transit &amp; Recreation <b>P. 209</b></li> <li>c. Public Works <b>P. 230</b></li> <li>d. Town Manager <b>P. 238</b></li> </ul>
16.	3:15	5	Kennefick	Informational	Other Business: <ul style="list-style-type: none"> <li>a. Council Boards and Commissions Update               <ul style="list-style-type: none"> <li>1. Ethics Commission</li> <li>2. Community Grant Committee</li> </ul> </li> </ul>
17.	3:20				Adjourn

Please note that times are approximate and subject to change.

jk  
05/04/18

Individuals with disabilities needing auxiliary aid(s) may request assistance by contacting Town Hall at 970-369-6429 or email: [mvclerk@mtnvillage.org](mailto:mvclerk@mtnvillage.org). A minimum advance notice of 48 hours is required so arrangements can be made to locate requested auxiliary aid(s)



## MEMORANDUM

**TO:** Paul Ruud, Telluride Public Works Director; Ross Herzog, Telluride Town Manager; Finn Kjome, Mountain Village Public Works Director; Kim Montgomery, Mountain Village Town Manager

**FROM:** Karen Guglielmon, Public Works Environmental & Engineering Division Manager

**DATE:** May 7, 2018

**SUBJECT:** Telluride Regional Wastewater Treatment Plant Master Plan – Progress Update

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The last update for the Telluride Regional Wastewater Treatment Plant Master Plan was in memorandum format on November 16, 2017. Since that date, a good deal of work has taken place in accordance with the 2018 milestones that were outlined in the November 2017 memorandum. The following list of activities follows that outline.

### Telluride Regional WWTP Master Plan

**Financial Analysis** – As scheduled, in this first quarter of 2018, a Request for Proposals was issued and FCS Group was contracted in late February to complete a Financial Analysis of the TRWWTP to identify how to move forward financially with implementing the TRWWTP Master Plan. This work relies on participation from each entity within the TRWWTP service area on a Financial Analysis Task Force. Telluride, Mountain Village, San Miguel County, Lawson Hill, Aldasoro, and Hillside/Eider Creek each have representatives that have been invited. Most are actively participating. There have been 2 meetings with the contractor to date: April 10, 2018, and April 27, 2018. The group has agreed that determining a path forward with the current service arrangements for the next 5 years is advisable. Further into the future, starting in 2022ish, the group is moving forward assuming that a Wastewater District will be in place to manage and finance additional ongoing anticipated expenses.

Jason Mumm with FCS Group will be making its first in-person presentation to the Town Councils of Telluride and Mountain Village the week of June 11<sup>th</sup>.

**The Flow Path** – The TRWWTP Master Plan Implementation remains on track, despite some changes to the mix of players. The TRWWTP Master Plan Implementation Team agreed that it was no longer of interest to continue the engineering consulting relationship with Stantec, the engineering firm selected to complete the TRWWTP Master Plan. That contract was terminated amicably, and all work has been wrapped up, and all files have been handed over. The TRWWTP staff and the Telluride's Environmental & Engineering Division staff is taking the reins to move 2018 implementation tasks forward, including: CleanB Biosolids Treatment Pilot Project, Biosolids Dewatering/Thickening Technology Selection & Design, and Supplemental Oxygen Technology Selection & Design, as described later in this memorandum. Telluride's new Town Engineer, Joyce Huang, is very experienced with both water and wastewater system. As well, a new contract is being put in place with an engineering consulting team from Jacobs, formerly CH2M, for approximately

\$115,000, to take a second look at the current Flow Path – that is, the ATAD and MBR technologies selected to upgrade the TRWWTP. Jacobs will also look at a potential alternative path that would include primary clarification with ATAD and with a Biosolids Dryer. Each of these will be assessed and compared with respect to feasibility and cost to construct.

**Clarifying a Future Site Plan** – Securing an agreement for land acquisition with San Miguel Valley Corporation remains a goal for 2018.

**Outreach to the Service Area** – Telluride Staff continues to coordinate and to present information to all entities within the service area regarding the TRWWTP Master Plan implementation.

### **CDPHE Regulation**

**Nutrients** – Staff has signed up for the early implementation program for meeting CDPHE Regulation 85 discharge limits for total inorganic nitrogen (15 mg/L) and total phosphorus (1 mg/L). If any work that the TRWWTP accomplished between now and 2023 reduces the TIN and TP concentrations below specified levels, then time may be earned on the implementation of water quality-based nutrient limits that will be imposed in the future.

**Temperature** – Staff continues its work to fully characterize this parameter to provide information that helps inform the need to respond to future potential regulation of instream temperature. The hobo temperatures meters that San Miguel Watershed Coalition purchased and installed upstream and downstream of the TRWWTP discharge will be invaluable for this assessment.

**In-stream Flow** – Staff continue its work with its contractor, Resource Engineering, to fully characterize flows in the San Miguel River to provide information that ensures future discharge permits use flow data that are representative of the reach into which the TRWWTP discharges.

### **CDPS Permit Renewal**

CDPHE staff is expected to issue an Administrative Continuance of the current permit in mid- or late-May 2018, due to their extensive permit review and re-issuance backlog.

### **Biosolids Management Improvements**

**CleanB Biosolids Treatment System Pilot Test.** The 3-month long CleanB Pilot revealed that this technology will not work with the TRWWTP. BCR Environmental took the pilot system away the first week of May. Staff is working with their technology team to find a home for the chemicals that remain.

**Finalize an agreement for beneficial reuse of biosolids with 3xM Grinding in Olathe.** This agreement is in place and construction of this new facility is underway.

**Biosolids Thickening/Dewatering Technology Selection & Design.** Telluride staff has taken over the task of selecting and designing a system for biosolids thickening/dewatering. The goal is to select a technology and depending on the price of installation, to install equipment in existing facilities by the end of this year. Since CleanB was not purchased, the \$1.4 million purchase price that was budgeted this year, could be used to speed up the design and installation timeline for biosolids thickening/dewatering.

### **Supplemental Oxygen Permitting & Design**

Telluride staff has taken over the task of selecting and designing a liquid oxygen-based supplemental oxygen permitting system. A pilot system for spring 2019 is anticipated. Telluride staff will apply to CDPHE for pilot permit. If the system works as anticipated, then staff will work with CDPHE to obtain a site modification permit that increases the plant loading capacity for BOD.

**Develop & Apply a New Septage Receiving Policy**

Telluride staff is working to develop this policy, which is likely to be put before the Councils next month. The intention is to increase the price per gallon of accepting septic sludge and possibly port-o-john waste. Staff is also contemplating how to potentially recover costs for RVs and buses that use the facility.

**Develop and Implement a new Industrial Pretreatment Permit Program**

Telluride staff is working to develop this new program. The existing FOG Program (Fats, Oils, & Grease) is being folded into the IPP Program. To date, staff has been working with the following new or revising commercial businesses:

1. Telluride Tire (Lawson)
2. Telluride Brewing Company (Lawson)
3. Stronghouse Brew Pub (Town of Telluride)

Existing businesses that may be incorporated in the future include:

1. Smuggler Brew Pub

**2017**

**2018**

**Administrative Tasks**

1 CDPHE Nutrients Reg	\$	10,000.00
2 CDPHE Permit Mod Rqst - Cu	\$	2,000.00
3 Dec 31 Cu Rpt to CDPHE		in house
4 SMC DevPermit - CleanB		in house
5 Public Outreach		in house
6 Stantec PM & OH	\$	25,950.00
7 CDPHE Permit Renewal Appl	\$	2,700.00
8 Copper Compliance	\$	39,442.00

1 Financial Analysis (1st Qtr)	\$	65,000.00
2 Public Outreach		in house
3 New CDPS Permit (May 15)	\$	15,000.00
4 CDPHE Apprvl Perm CleanB	\$	8,000.00
5 CDPHE Apprvl SupplO <sub>2</sub> Design	\$	8,000.00
6 Land Acquistition Agreement		?
7 New Septage Receiving Policy		in house
8 Stantec PM & OH	\$	60,550.00
9 IPP Agreement - TBC	\$	5,000.00
10 IPP Agreement - TellTire	\$	5,000.00
11 IPP Agreement - StrongHsBrw	\$	1,000.00
12 SMC Dev Permit - PermCleanB?		in house
13 Copper Compliance?	\$	88,400.00

**\$ 80,092.00**

**\$ 255,950.00**

**BIOSOLIDS**

1 CleanB Pilot Lease	\$	59,000.00
2 CleanB Pilot Integration Design	\$	61,398.00

1 CleanB Pilot Lease	\$	28,000.00
2 Purchase CleanB?	\$	1,400,000.00
3 Dewatering/Thickening Selection&Design	\$	262,422.00
4 Biosolids Compost - 3XM	\$	65,000.00

**\$ 120,398.00**

**\$ 1,755,422.00**

**LIQUID STREAM**

1 Alternative Layouts	\$	15,000.00
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1 Supplemental O <sub>2</sub> Design	\$	221,900.00
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**\$ 15,000.00**

**\$ 221,900.00**

**\$ 215,490.00**

**\$ 2,233,272.00**



TOWN OF MOUNTAIN VILLAGE  
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**TOWN OF MOUNTAIN VILLAGE  
MINUTES OF THE APRIL 26, 2018  
REGULAR TOWN COUNCIL MEETING **DRAFT**  
**AGENDA ITEM # 6****

The meeting of the Town Council was called to order by Mayor Laila Benitez at 8:31 a.m. on Thursday, April 26, 2018 in the Mountain Village Town Hall, 455 Mountain Village Boulevard, Mountain Village, Colorado.

**Attendance:**

**The following Town Council members were present and acting:**

Laila Benitez, Mayor  
Dan Caton, Mayor Pro Tem  
Dan Jansen  
Jack Gilbride  
Bruce MacIntire (via phone)  
Patrick Berry  
Natalie Binder

Also in attendance were:

Kim Montgomery, Town Manager  
Jackie Kennefick, Director of Administration/Town Clerk  
Susan Johnston, Deputy Town Clerk  
Christina Lambert, Administrative Services Coordinator  
David Reed, Town Attorney  
Jim Mahoney, Assistant Town Attorney  
Chris Broady, Police Chief  
Kevin Swain, Finance Director  
Julie Vergari, Chief Accountant  
Michelle Haynes, Director of Planning & Development Services  
Dave Bangert, Planner II/Forester  
Sam Starr, Planner  
Bill Kight, Marketing & Business Development Director  
Sue Kunz, Director of Human Resources  
Cecilia Curry, VCA Property Manager  
Rob Johnson, Transit Manager  
JD Wise, Plaza Services Manager  
Jim Loebe, Director of Transit & Recreation  
Steven LeHane, Director of Cable  
Finn Kjome, Public Work Director

Gene Dakonish  
Robert Stenhammer  
Cath Jett  
Paul Reich  
Riley McIntyre  
Kim Wheels  
Doug Tooley  
Tim Johnson  
Heather Knox  
Jonathan Greenspan  
Anton Benitez  
Henry Mitchell  
Rob Story  
Marti Prohaska  
Savanna Wagner  
Samantha Andrews  
Marisa Marshalka  
Mindy Perkovich

**Executive Session for the Purpose of Receiving Legal Advice Pursuant to C.R.S. 24-6-402(b), and for the Purpose of Negotiations Pursuant to C.R.S. 24-6-402(4)e (2)**

On a **MOTION** by Dan Caton and seconded by Natalie Binder, Council voted unanimously to enter into Executive Session for the purpose of receiving legal advice pursuant to C.R.S. 24-6-402(b), and for the purpose of negotiations pursuant to C.R.S. 24-6-402(4)e at 8:32 a.m.

Council returned to regular session at 10:04 a.m.

**Council took a break from: 10:05 a.m. to 10:12 a.m. (3)**

**Public Comment on Non-Agenda Items (4)**

There was no public comment.

**Consideration of Approval of Minutes of the March 15, 2018 Regular Council Meeting (5)**

Deputy Town Clerk Susan Johnston presented. On a **MOTION** by Dan Caton and seconded by Jack Gilbride, Council voted unanimously to approve the March 15, 2018 meeting minutes with clarifications to the Colorado Flights Alliance Report (agenda item 20b).

**Liquor Licensing Authority: (6)**

**a. Consideration of an Application by Telski Food & Beverage Services dba Tomboy Tavern for a Temporary Modification of Premises on a Hotel & Restaurant with Optional Premises Liquor License for a Private Event at the Ridge Club on June 9, 2018**

Susan Johnston presented. Patrick Berry recused himself due to his employment with Telski. On a **MOTION** by Dan Caton and seconded by Jack Gilbride, Council voted 6-0 (with Patrick Berry recused) to approve an application by Telski Food & Beverage Services dba Tomboy Tavern for a Temporary Modification of Premises on a Hotel & Restaurant with Optional Premises liquor license for a private event at the Ridge Club on June 9, 2018.

**b. Consideration of an Application by Telski Food & Beverage Services dba Tomboy Tavern for a Temporary Modification of Premises on a Hotel & Restaurant with Optional Premises Liquor License for a Private Event at the Ridge Club on June 29, 2018**

Susan Johnston presented. Patrick Berry recused himself due to his employment with Telski. Council discussion ensued. On a **MOTION** by Jack Gilbride and seconded by Natalie, Council voted 6-0 (with Patrick Berry recused) to approve an application by Telski Food & Beverage Services dba Tomboy Tavern for a Temporary Modification of Premises on a Hotel & Restaurant with Optional Premises Liquor License for a private event at the Ridge Club on June 29, 2018.

**c. Consideration of a Special Event Permit for Mountainfilm LTD for a 40<sup>th</sup> Anniversary Celebration at Heritage Plaza on May 26, 2018 from 5:30 p.m. to 10:30 p.m.**

Susan Johnston presented. Mountainfilm, LTD Festival Producer Amanda Baltzley provided public comment. On a **MOTION** by Dan Jansen and seconded by Jack Gilbride, Council voted unanimously to approve a Special Event Permit for Mountainfilm LTD for a 40<sup>th</sup> anniversary celebration at Heritage Plaza on May 26, 2018 from 5:30 p.m. to 10:30 p.m.

**Consideration of a Term Sheet regarding Settlement Terms for Lot 161C-R and Ridge Lawsuit (7)**

Assistant Town Attorney Jim Mahoney presented. On a **MOTION** by Jack Gilbride and seconded by Dan Jansen, Council voted unanimously to approve a Term Sheet regarding settlement terms for Lot 161C-R and Ridge Lawsuit subject to the following two amendments in the drafting of the settlement agreement:

- Clarification of the confidentiality clause
- Clarification of who the parties are to the agreement and who they represent

**Consideration of Approval of a Resolution Calling for Action Minutes to be Kept as the Official Record of Council Meetings (8)**

Town Clerk/Director of Administration Jackie Kennefick presented. On a **MOTION** by Dan Caton and seconded by Patrick Berry, Council voted unanimously to adopt a Resolution calling for action minutes to be kept as the official record of Council meetings.

**Finance: (9)**

**a. Presentation of the March 31, 2018 Business & Government Activity Report (BAGAR)**

Director of Finance Kevin Swain presented the BAGAR. Council directed the Cable & Broadband Services Department staff to include in future reports a graph comparing monthly cable and broadband subscriber numbers.

**b. Consideration of Approval of the February 28, 2018 Financials**

Kevin Swain presented. On a **MOTION** by Jack Gilbride and seconded by Dan Caton, Council voted unanimously to approve the February 28, 2018 Financials as presented.

**Consideration of Approval of the IT Policy for Removable Devices (10)**

Human Resources Director Sue Kunz presented. On a **MOTION** by Dan Jansen and seconded by Jack Gilbride, Council voted unanimously to approve an IT policy for removable devices with the amendment under *Device Requirements*, to clarify **Town owned smartphones and tablets are allowed.**

**Consideration of Resolution Adopting the San Miguel County All Hazard Mitigation Plan (11)**

Chief of Police Chris Broady and San Miguel County Emergency Manager Henry Mitchell presented. On a **MOTION** by Dan Jansen and seconded by Natalie Binder, Council voted unanimously to approve a Resolution adopting the San Miguel County All Hazard Mitigation Plan.

**Consideration of Approval of an Amended and Restated IGA Concerning the Establishment of the Western Colorado Regional Dispatch Center Providing Emergency Services Throughout Western Colorado (12)**

Chief Broady presented. On a **MOTION** by Jack Gilbride and seconded by Dan Jansen, Council voted unanimously to approve an amended and restated IGA concerning the establishment of the Western Colorado Regional Dispatch Center Providing Emergency Services throughout western Colorado.

**2018 Drought Planning Discussion and Council Direction (13)**

Public Works Director Finn Kjome and Forester/Planner II Dave Bangert presented. On a **MOTION** by Patrick Berry and seconded by Jack Gilbride Council voted 6-0 (with Mayor Benitez absent for the vote) to implement exterior water restrictions for water customers of the Mountain Village water system for the 2018 irrigation season.

Bruce MacIntire left the meeting at 11:25 a.m.

**Meadows Improvement Plan Update and Council Direction (14)**

Finn Kjome presented. Council directed staff to hold the funds dedicated to the Meadows Improvement Plan (approximately \$285,000); the funds may be re-allocated to the IT project or a Meadows Park project.

Council moved to agenda item 23.

**Council took a break for lunch from 12:10 p.m. to 12:32 p.m.**

**Consideration of Approval of a Proclamation Recognizing May as Mental Health Awareness Month (15)**

Behavioral Health Program Manager for Tri County Health Network Paul Reich presented. The Mayor read the Proclamation. On a **MOTION** by Dan Caton and seconded by Jack Gilbride, Council voted unanimously to approve a Proclamation recognizing May as Mental Health Awareness Month.

**Consideration of Approval of a Proclamation Recognizing May as Sexual Assault Awareness Month (16)**

San Miguel Resource Center Executive Director Riley McIntyre presented. On a **MOTION** by Jack Gilbride and seconded by Dan Caton, Council voted unanimously to approve a Proclamation recognizing May as Sexual Awareness Month.

**Green Team Committee Items: (17)**

**a. Consideration of Approval of a Fee for Service Proposal from Eco Action Partners to Produce a Greenhouse Gas Emissions Inventory in 2018 for the Town of Mountain Village**

Director of Planning & Development Services Michelle Haynes presented. Dan Caton recused himself because he is a member of the Pinhead Board of Directors. The Pinhead Institute and Eco Action Partners have a difference of opinion on the use of the data collected for the Greenhouse Gas Emissions Inventory. Public comment was received from Heather Knox and Kim Wheels of Eco Action Partners and Doug Tooley. On a **MOTION** by Dan Jansen and seconded by Jack Gilbride, Council voted 5-0 (with Dan Caton recused and Bruce MacIntire absent) to approve a \$12,000 fee for service proposal from Eco Action Partners to produce a Greenhouse Gas Emissions Inventory in 2018 for the Town subject to the amendment that the underlying data be made available to Mountain Village and that EAP work towards broader availability of the

data. Council directed staff to request a work session discussion on sharing data from the Greenhouse Gas Emission Inventory on the next Inter Governmental meeting agenda.

**b. Consideration of Approval of a Compost Incentive Program**

Town Manager Kim Montgomery presented. Public comment was received by Heather Knox and Cath Jett. On a **MOTION** by Dan Caton and seconded by Dan Jansen, Council voted unanimously to approve the Compost Incentive Program subject to the amendment that the agreement include clarification to the language on reporting and compliance.

**c. Consideration of Approval of an Income Qualified Farm to Community Pilot Program**

Michelle Haynes presented. Public comment was received by Marisa Marshalka with the Telluride Foundation, Green Team Chair Marti Prohaska, Farmer Mindy Perkovich with Mountain Roots and Sam Andrews, Board member of the Fresh Food Hub. On a **MOTION** by Dan Jansen and seconded by Dan Caton, Council voted unanimously to approve an Income Qualified Farm to Community Pilot Program subject to the amendment that there is a co-pay included in the program.

**Town Hall Subarea Update (18)**

Michelle Haynes and TMVOA Executive Director Anton Benitez presented and will provide monthly updates at future Town Council meetings.

**Village Center Subarea Update (19)**

Michelle Haynes and Anton Benitez presented and will provide monthly updates at future Town Council meetings. Public comment was received by Doug Tooley.

**Update on the Affordable Care Act (ACA) for Seasonal Employees (20)**

Sue Kunz and Transit Manager Rob Johnson presented.

On a **MOTION** by Dan Jansen and seconded by Dan Caton, Council voted unanimously to extend the meeting beyond 6 hours.

**Trails Master Plan Draft RFP (21)**

Director of Transit and Recreation Jim Loebe presented.

**Presentation of the Addition of a New Community Engagement Coordinator Position (22)**

Director of Marketing and Business Development Bill Kight, Kim Montgomery and Michelle Haynes presented.

**Council Boards and Commissions Updates: (23)**

- a. **San Miguel Watershed Coalition (SMWC) –Starr**
- b. **Colorado Flights Alliance (CFA) –Jansen**
- c. **Transportation & Parking – MacIntire/Benitez**
- d. **Budget & Finance Committee -Gilbride/Caton**
- e. **Gondola Committee – Caton/Berry**
- f. **Colorado Communities for Climate Action – Berry**
- g. **San Miguel Authority for Regional Transportation (SMART) - Benitez/Caton/Binder**
- h. **Eco Action Partners (EAP)– Berry/Binder**
- i. **Telluride Historical Museum - Berry**
- j. **Telluride Conference Center (TCC) –MacIntire/Gilbride**
- k. **Alliance for Inclusion – Berry**
- l. **Green Team Committee - Berry/MacIntire**
- m. **Telluride Tourism Board - Jansen**
- n. **Mayor's Update – Benitez**

Council moved to the lunch break.

**Staff Reports: (24)**

**a. Planning & Development Services**

Michelle Haynes presented her report.

**b. Town Manager**

Kim Montgomery presented her report.

**Other Business (25)**

**a. Guest Services Transition from Telluride Tourism Board to Telluride Ski & Golf**

Bill Kight presented. Public comment was received by Cath Jett.

There being no further business, on a **MOTION** by Dan Caton and seconded by Dan Jansen, Council voted unanimously to adjourn the meeting at 3:38 p.m.

Respectfully prepared,

Susan Johnston  
Deputy Town Clerk

Respectfully submitted,

Jackie Kennefick  
Town Clerk

DRAFT

# Telluride Tourism Board Quarterly Update 17 May 2018



# MARKETING



A globe is centered in the background, showing parts of Africa and South America. Overlaid on the globe are several thick, orange, 3D-style horizontal bars. The text "The Grand Tour" is written in a white, bold, sans-serif font across the center of these bars. The background is a gradient of teal and blue, with stylized white clouds at the bottom.

# The Grand Tour

TELLURIDE  
COLORADO

SNOW

Though r  
renegade

# TRAVEL + LEISURE

DESTINATION OF THE YEAR

# CANADA

PLUS  
BARBADOS  
TELLURIDE  
MILAN  
TASMANIA  
SAN FRANCISCO

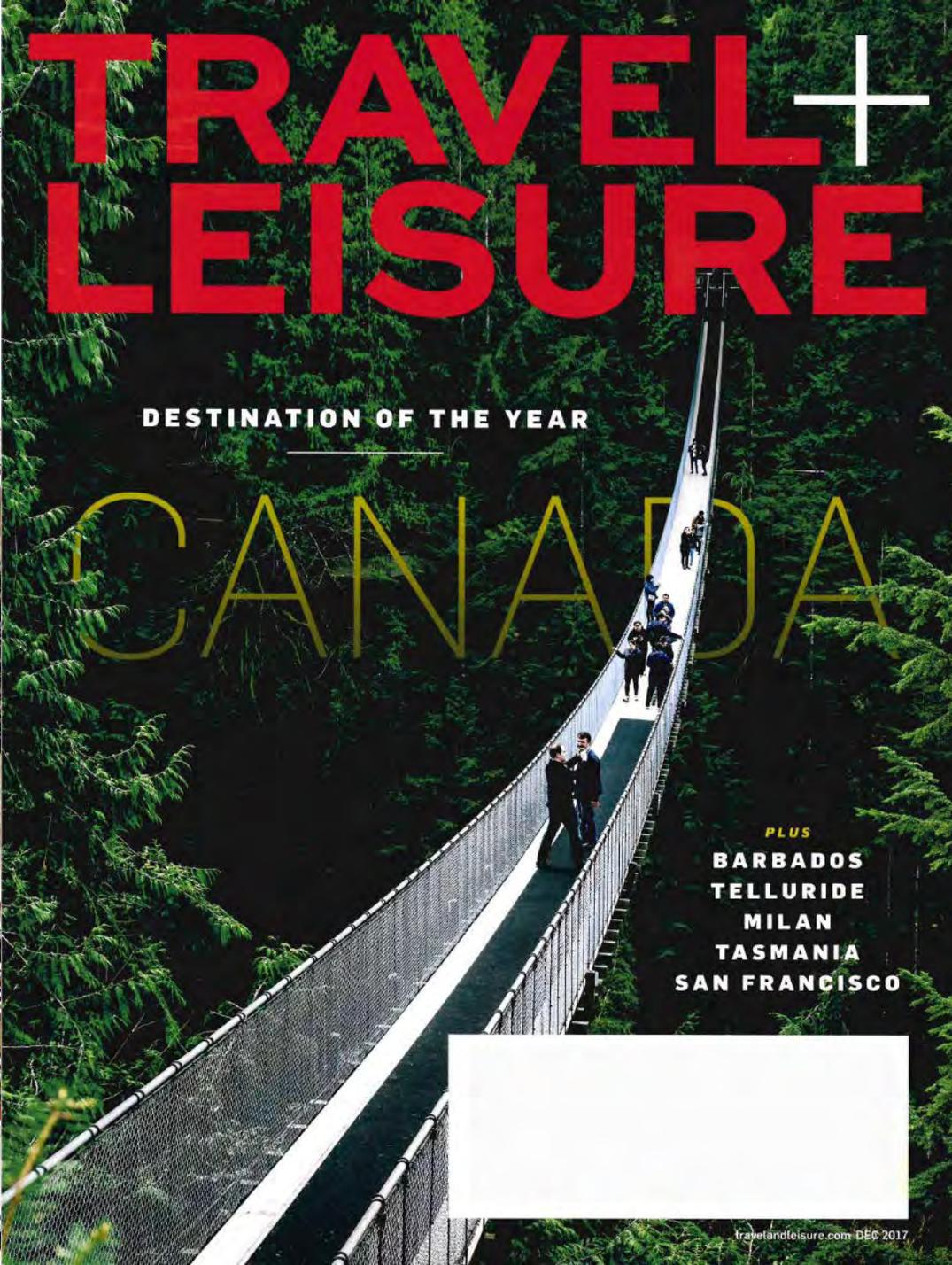
An aerial view of  
the Victorian homes  
and historic  
buildings in  
Telluride, in the  
heart of the  
Colorado Rockies.

108 | [travelandleisure.com](http://travelandleisure.com)

[travelandleisure.com](http://travelandleisure.com) DEC 2017

h is why it continues to draw  
kies. PHOTOGRAPHS BY JAKE STANGEL

# daze



# HORIZON

LIFESTYLE

**EMPOWERING STUDENTS TODAY FOR A BRIGHTER TOMORROW**



PERFECT TELLURIDE

YOUR GREAT GILROY GETAWAY

WELCOME TO VENTURA

REDISCOVER THE SIMPLE PLEASURES IN BIG BEND

The Wall Street Journal news organization was not involved in the creation of this content.





# blister



WINTER BUYER'S GUIDE  
2017//2018

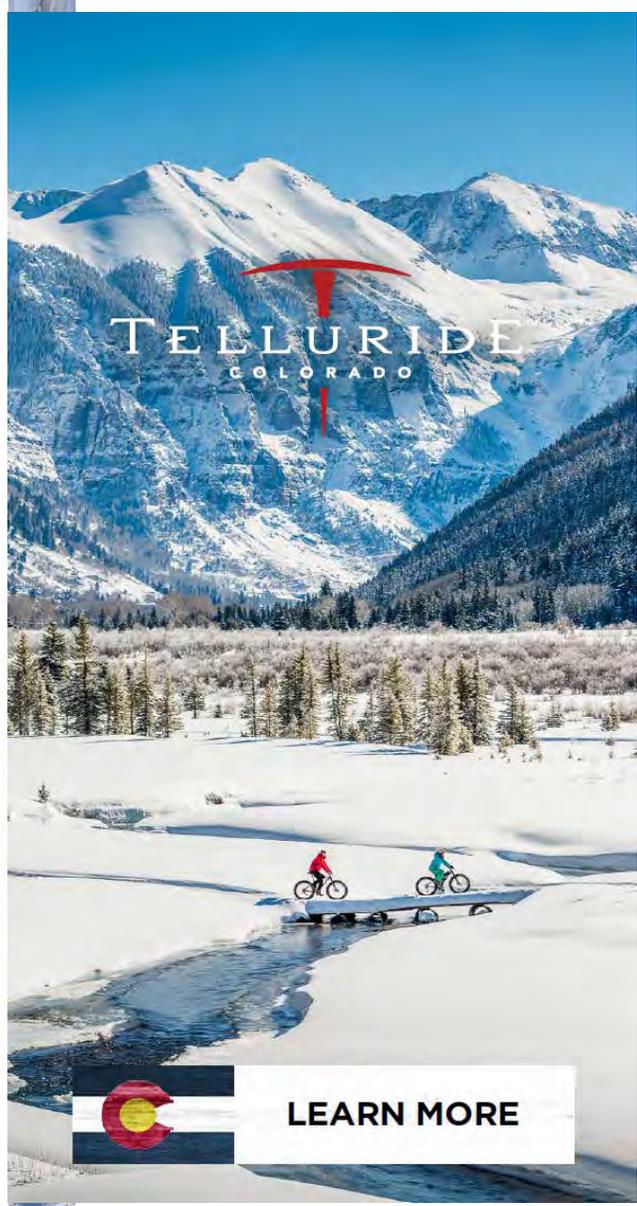
A scenic landscape of a mountain valley. In the foreground, a calm river reflects the sky and the surrounding greenery. The middle ground is filled with dense evergreen forests and patches of yellow wildflowers. In the background, majestic, layered mountain peaks rise against a blue sky with scattered white clouds. A large, stylized graphic of a chef's knife is positioned vertically, with its blade pointing upwards and its handle pointing downwards, acting as a separator between the words 'TOP' and 'CHEF'.

**TOP** **CHEF**  
COLORADO



TELLURIDE  
COLORADO

 THE MOST COLORADO  
PLACE ON EARTH



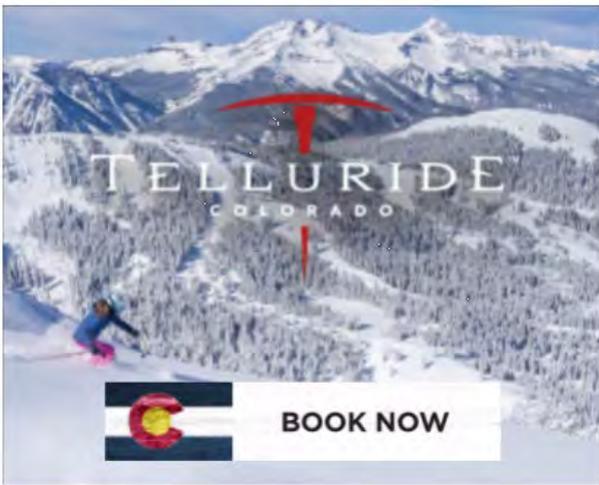
TELLURIDE  
COLORADO

 LEARN MORE



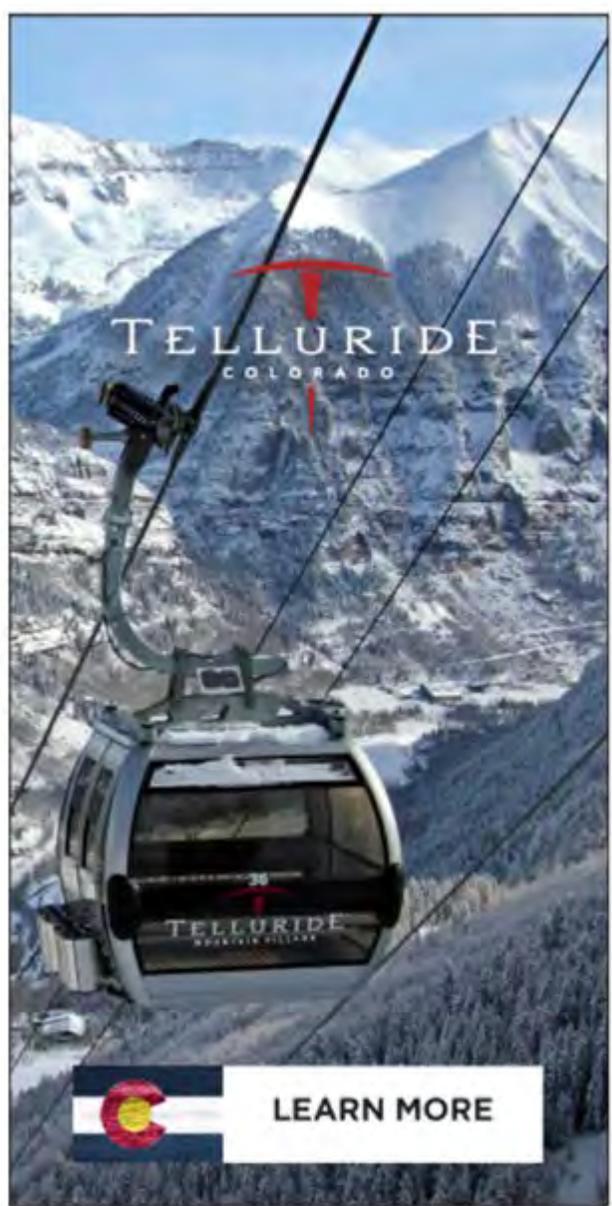
TELLURIDE  
COLORADO

 FLY DIRECT FROM  
12 MAJOR HUBS



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 BOOK NOW



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**NO TRAFFIC, NO LINES,  
NO COMPARISON**

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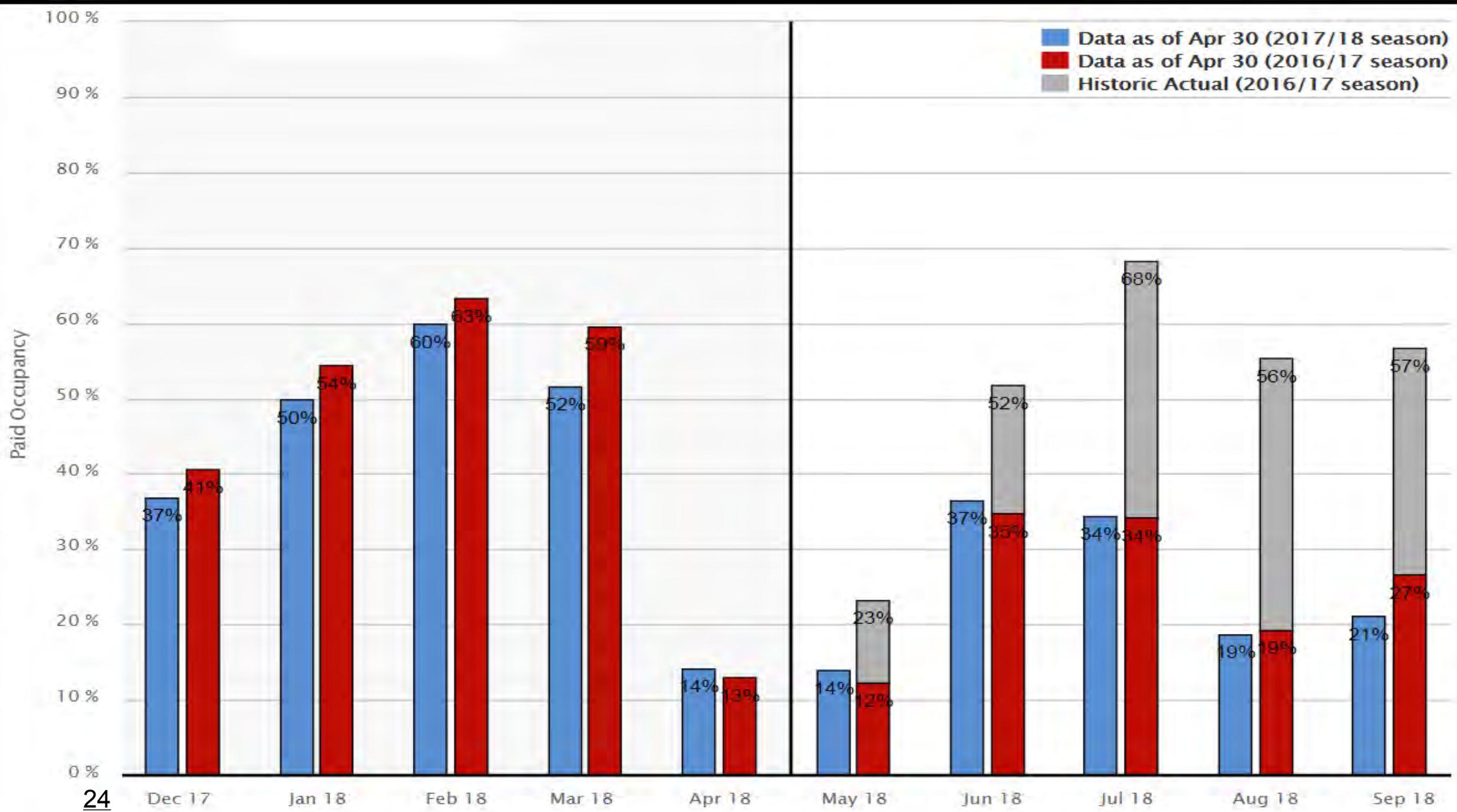


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# METRICS





# ANALYTICS



# CLUSTERS FRAMEWORK

Income	LOW <\$50K	MODERATE \$50K – 100K	HIGH \$100K – 200K	ELITE \$200K+
Young <35	<p><b>A</b></p> <p>A1: Tough Start: Young Single Parents            A2: Tough Start: Young Singles            A3: Starting Small: Small-Town Families            A4: Starting Small: Small-Town Singles            A5: Living on Loans: Young Urban Single Parents            A6: Living on Loans: Young Urban Singles</p>	<p><b>E</b></p> <p>E22: Credit City: Young Families            E23: Credit City: Young Singles            E24: Midscale Mainstream: Small-Town Families and Couples            E25: Midscale Mainstream: Small-Town Singles and Couples            E26: Getting Ahead: Young City Families            E27: Getting Ahead: Young City Singles</p>	<p><b>I</b></p> <p>I43: Charge-It Champs: Young Suburban Families            I44: Charge-It Champs: Young Suburban Singles and Couples            I45: Confident Futures: Young City Families            I46: Confident Futures: Young City Singles            I47: Material World: Urban Families            I48: Material World: Urban Singles</p>	<p><b>M</b></p> <p>M64: Big Shots: Young Upmarket Urbanites</p>
Working Years 35-54	<p><b>B</b></p> <p>B7: Mid-Life Strugglers: Small-Town Families            B8: Mid-Life Strugglers: Singles            B9: Getting By: Small-Town Families            B10: Getting By: Small-Town Singles and Couples            B11: Credit Crunched: City Families            B12: Credit Crunched: City Singles</p>	<p><b>F</b></p> <p>F28: Living Simply: Small-Town Families            F29: Living Simply: Small-Town Singles and Couples            F30: Credit Rules: Urban Families            F31: Credit Rules: Urban Singles            F32: Suburban Stability: Families            F33: Suburban Stability: Singles and Couples</p>	<p><b>J</b></p> <p>J49: House of Cards: Suburban Families            J50: House of Cards: Suburban Singles and Couples            J51: Prudent Professionals: Suburban Families            J52: Prudent Professionals: Suburban Singles and Couples            J53: Suburban Success: Upscale Families            J54: Suburban Success: Upscale Singles and Couples</p>	<p><b>N</b></p> <p>N65: Careers First: City Singles            N66: Executive Spenders: Suburban Families            N67: Executive Spenders: Suburban Couples</p>
Pre-Retirement 55-64	<p><b>C</b></p> <p>C13: Retiring on Empty: Singles            C14: Burdened by Debt: Small-Town Singles            C15: Sensible Spenders: Families            C16: Sensible Spenders: Small-Town Empty Nesters            C17: Sensible Spenders: Urban Pre-Retirement Singles</p>	<p><b>G</b></p> <p>G34: Committed to Credit: Small-Town Couples            G35: Striving for Balance: Urban Pre-Retirement Singles            G36: Conservative Consumers: Small-Town Empty Nesters            G37: Conservative Consumers: Suburban Families            G38: Solid Foundation: Suburban Empty-Nesters</p>	<p><b>K</b></p> <p>K55: Living for Today: Singles and Couples            K56: Planners and Savers: Suburban Families            K57: Planners and Savers: Small Town Couples            K58: Planners and Savers: Urban Singles and Couples            K59: Country Club Climbers: Suburban Empty-Nesters</p>	<p><b>O</b></p> <p>O68: Corner Offices: Executive Urban Singles and Couples            O69: Champagne Tastes: Executive Empty-Nesters</p>
Retired 65+	<p><b>D</b></p> <p>D18: Relying on Aid: Retired Singles            D19: Rough Retirement: Small-Town and Rural Seniors            D20: Struggling Elders: Small-Town and Rural Singles            D21: Little to Live On: Urban Retirees</p>	<p><b>H</b></p> <p>H39: Retired on Credit: City Singles and Couples            H40: Safety Net Seniors: Small-Town Retired Couples            H41: Nest Egg Elders: Older Retirees            H42: Comfortable Retirement: Suburban Singles and Couples</p>	<p><b>L</b></p> <p>L60: Comfortable with Credit: Upscale Retirees            L61: Rewarding Retirement: Affluent Suburbanites            L62: Affluent Elders: Older Upscale Suburbanites            L63: Established Wealth: Suburban Retirees</p>	<p><b>P</b></p> <p>P70: Flush Funds: Wealthy Urban Seniors            P71: Diamonds and Pearls: Wealthiest Retirees</p>

# ECONOMIC BUILDING BLOCKS

- The only company directly measuring consumers’ “economic capacity”.
- They make use of 60 data points to assign households into a Cohort.
- Each financially-focused data point is directly measured from account-level information (income cannot be over-stated or under-reported).
- Additionally, its MRI studies asks approximately 50,000 women/men about more than 70,000 behaviors, purchases, and attitudes then uses Cohorts to link that information with those who have come to Telluride.
- To even attempt this kind of big-data muscle, we would need to conduct more than 120,000 guest surveys – then, somehow compile them to form a nationally representative data set.

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# A HISTORIC PERSPECTIVE



# DESTINATION TAXABLE SALES REVENUE

## 2017 vs 2010

### TOTAL SALES REVENUE GROWTH

#### 2017 vs. 2010

WINTER:	\$ 47,793,805	65%
SUMMER:	\$ 42,484,708	84%
SPRING:	\$ 3,515,479	36%
FALL:	<u>\$ 7,984,005</u>	76%
TOTAL:	\$101,777,997	70%

# TELLURIDE

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# GMUG National Forest Recommended Wilderness and Special Interest Areas

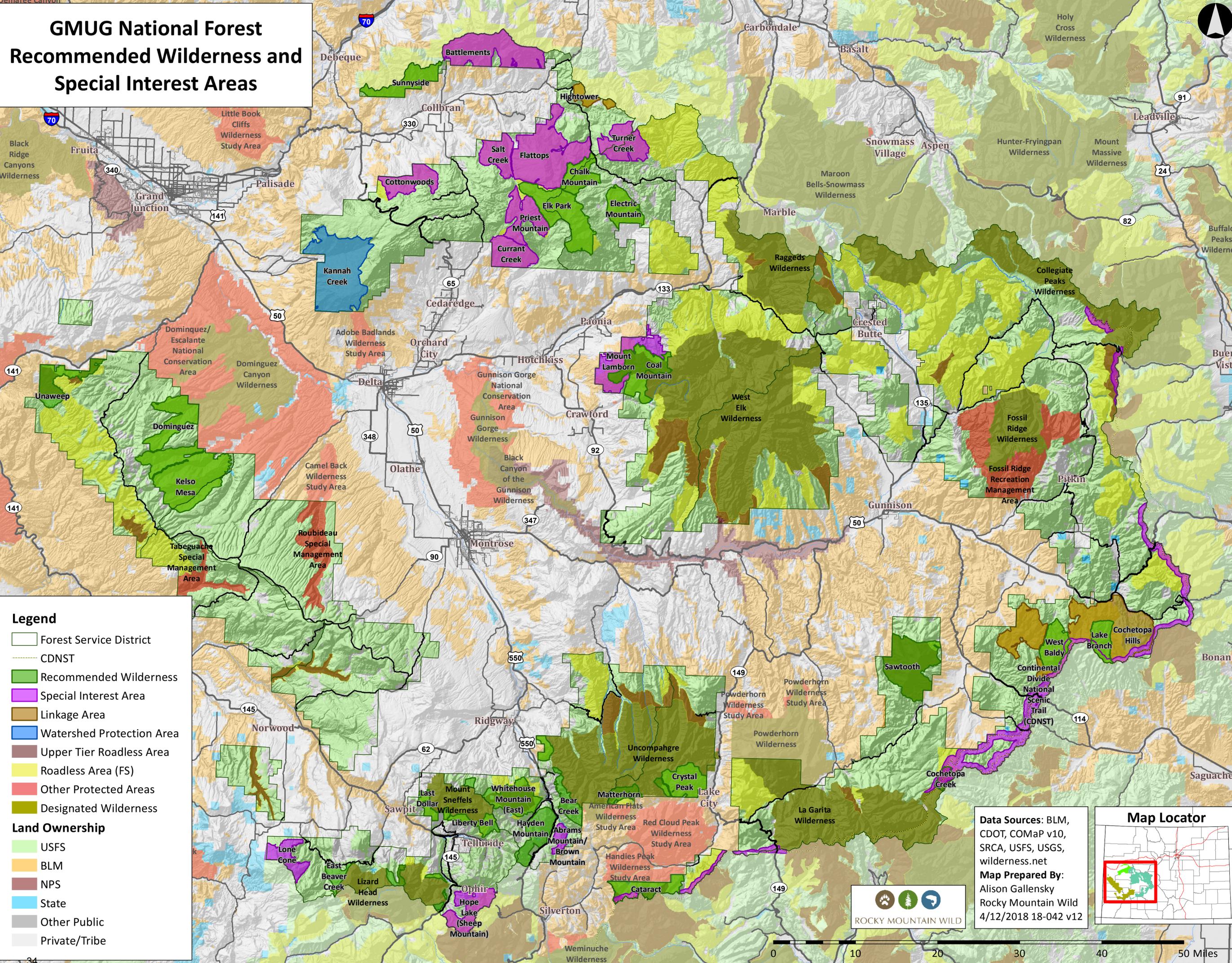


**Legend**

- Forest Service District
- CDNST
- Recommended Wilderness
- Special Interest Area
- Linkage Area
- Watershed Protection Area
- Upper Tier Roadless Area
- Roadless Area (FS)
- Other Protected Areas
- Designated Wilderness

**Land Ownership**

- USFS
- BLM
- NPS
- State
- Other Public
- Private/Tribe



**Data Sources:** BLM, CDOT, COMaP v10, SRCA, USFS, USGS, wilderness.net  
**Map Prepared By:** Alison Gallensky  
 Rocky Mountain Wild  
 4/12/2018 18-042 v12



The Wilderness Society • High Country Conservation Advocates • Rocky Smith • Wilderness Workshop  
• Great Old Broads for Wilderness • Western Environmental Law Center • Rocky Mountain Wild •  
Defenders of Wildlife • Ridgway Ouray Community Council

Forest Planning Team  
GMUG National Forest  
2250 Highway 50  
Delta, CO 81416

March 6, 2018

Dear GMUG Planning Team,

Please accept these comments on the draft wilderness evaluation criteria from The Wilderness Society, High Country Conservation Advocates, Rocky Smith, Wilderness Workshop, Great Old Broads for Wilderness, Western Environmental Law Center, Rocky Mountain Wild, Defenders of Wildlife, and Ridgway Ouray Community Council. The Grand Mesa-Uncompahgre-Gunnison National Forest (GMUG) posted the draft evaluation criteria online<sup>1</sup> on February 20, 2018 and set March 6, 2018 as the deadline for submitting comments. Thank you for the opportunity to provide feedback on the draft evaluation criteria.

Criterion 1: Apparent Naturalness

The guiding principle in evaluating the apparent naturalness of a polygon is whether the overall area appears to be affected primarily by the forces of nature, with the imprints of modern human activity substantially unnoticeable. The standard for this criterion is how natural the area would appear to an average, reasonable person.<sup>2</sup> The most common mistake in evaluating apparent naturalness is to assess the degree to which the area is ecologically unblemished, which is a distinctly different inquiry than assessing whether the area looks natural, or, put another way, does not appear substantially modified by past human activities. For the most part, we like how the GMUG framed Criterion 1 as the questions are designed to discern past management activities that make the landscape look anthropomorphically modified. Question 1a, however, would benefit from further clarification that the inquiry is not about ecological purity of the area but rather about its natural appearance. See Exhibit 1. We recommend that you modify the first evaluation consideration under Question 1a to say: “Does the composition of plant and animal communities appear substantially unnatural (for example, past management activities have created a plantation style forest with trees of a uniform species, age, and planted in rows)?”

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<sup>1</sup> <https://www.fs.usda.gov/detail/gmug/landmanagement/planning/?cid=fseprd500301>

<sup>2</sup> See Gila National Forest Draft Wilderness Evaluation Process Paper, Page 5. Published October 2017. Also see Exhibit 1 that contains relevant excerpts from the *Q&As Relating to Wilderness Planning Under Chapter 70 of the 2015 Planning Rule Directives, Version 1.1*.

## Criterion 2: Solitude OR Primitive and Unconfined Recreation

While the text on page 6 emphasizes that this criterion is solitude OR primitive or unconfined recreation, the text on pages 1-3 (in the section describing how to rank evaluation polygons) seems to conflate the two concepts. The process paper should make clear that a polygon need not have both of these characteristics, and that the polygon should receive a rank for this criterion that reflects the higher of the individual ranks for solitude and unconfined primitive recreation.

Under Question 2b, the draft paper defines high-quality primitive and unconfined recreation as activities that typically are “challenging and/or require elevated self-reliance...[with] a lack of facilities and equipment, as well as a lack of rule/regulations.” Draft paper, page 6. We disagree that a precursor to high quality primitive or unconfined recreation is lack of equipment or rules. In fact, most people who recreate in wild places carry backpacks or use other types of equipment (e.g., hunters use rifles; skiers use skis; some winter visitors use snowshoes, hikers use hiking poles and crampons), and some wilderness-based activities are governed by widely accepted rules (e.g., hunters and anglers must have licenses).<sup>3,4</sup> We recommend that you modify this definition by removing the second sentence.

In the third bullet under Question 2b, we suggest you use the list provided in FSH 1909.12, chapter 70, section 72.1 (2)(b) of examples of primitive/unconfined recreational activities. These are: observing wildlife, hiking, backpacking, horseback riding, fishing, hunting, floating, kayaking, cross-country skiing, camping, and enjoying nature.

## Criterion 4: Unique and outstanding qualities

Question 4a: In addition to the bullet provided, we suggest that you add the following additional bullets:

- Does the polygon contain or overlap with Potential Conservation Areas designated by the Colorado Natural Heritage Program?<sup>5</sup>
- Does the polygon contain ecosystems that are underrepresented in the current network of protected area, at the forest, regional or national scale? Given climate change, the presence of under-protected ecosystems is becoming an increasingly important and unique characteristic.<sup>6</sup>
- Does the area provide a unique or outstanding ecological function (for instance, serves as an important wildlife corridor or nesting area)?

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<sup>3</sup> The Wilderness Act itself in fact imposes rules and regulations on managers and users of Wilderness areas.

<sup>4</sup> We suspect that this question may flow from The Wilderness Act’s use of the word untrammled which some define as uncontrolled, unconfined or without human modifications or manipulations. For a discussion of the word untrammled, see Kevin Proescholdt, *Untrammled Wilderness*, in *Minnesota History*, Vol. 61, Fall 2008, pp. 114-123 available at <http://wildernesswatch.org/pdf/Untrammled.pdf>.

<sup>5</sup> See [http://www.cnhp.colostate.edu/download/gis/pca\\_reports.asp](http://www.cnhp.colostate.edu/download/gis/pca_reports.asp).

<sup>6</sup> See Appendix 1 of the letter submitted by TWS et al on January 17, 2017 and reattached here as Exhibit 2. The last section starting on page 43 provides an example of how the information can be incorporated into potential wilderness area narratives. *Also see* Dietz et al, 2015 (“Human population growth, climate change, and pressure for development and extraction of natural resources make wilderness and other protected areas increasingly vital to conserve biological diversity.”)

## Criterion 5: Manageability

The evaluation of “the degree to which the area may be managed to preserve its wilderness characteristics” is meant to address whether and how the geographical shape and configuration of the area and any governing legal requirements might frustrate wilderness management. FSH 1909.12, Chap. 70, Sec. 72.1(5). For instance, numerous cherry-stemmed roads that create narrow fingers, or narrow strips connecting different parts of the area may frustrate wilderness management. Similarly, legally established rights or uses within the area (e.g., rights of access to private land inholdings or energy leases) may also frustrate wilderness management. Agency-authorized uses such as motorized recreation are not rights or uses established by law and are not relevant to the evaluation of manageability. Similarly, demographic factors such as distance to and size of nearby population centers are also not relevant. Current and future management of polygons is appropriately considered in the analysis phase. Lastly, note that manageability concerns that are identified in the evaluation can sometimes be addressed by adjusting the boundaries of the polygon.

Given the intent of the manageability inquiry, several of the bullets under this criterion should be removed, clarified, or modified because they are not relevant as drafted. We recommend the following changes to the bulleted questions provided in the draft process paper. Italicized text denote our comments. Recommended modifications are denoted with strikethrough text for words that should be removed, and bolded text for words that should be added.

- How could the shape/size of the polygon aid or impede the ability to manage the polygon to preserve its wilderness characteristics? *We recommend adding:* Can any manageability problems be minimized by adjusting the polygon’s boundaries?
- How could the terrain of the polygon aid or impede the ability to manage the polygon to preserve its wilderness characteristics? *We are not sure how terrain could aid or impede the agency’s ability to manage an area to preserve its wilderness characteristics. Either provide clarification on how terrain is relevant or delete.*
- What is the presence and extent of existing rights of use in the polygon? (mineral rights, water rights, easements, leases).
- How could the polygon’s amount and variety (motorized, mechanized, non-motorized) of access routes aid or impede the ability to manage the polygon to preserve its wilderness characteristics? *This question should be removed as current management or future management tradeoffs are inappropriate to consider in the evaluation phase as discussed above.*
- What is the extent of non-Federal lands and non-federal access ~~adjacent~~ **within** to the polygon? Would the presence of these lands/access aid or impede the ability to manage the polygon to preserve its wilderness characteristics? *This question should be modified or clarified. While the distribution, extent, and type of non-federal lands within the polygon is relevant to this inquiry, we do not understand how the tenure of lands outside of the polygon is relevant.*
- What is the general management of adjacent lands, and what entities administer those lands? *This question should be removed because it is not relevant to the inquiry about manageability. If*

*the lands currently qualify for wilderness under the current management scheme of adjacent lands, then presumably they will continue to possess wilderness characteristics in the future.*

- What are the current types and extent of ~~management~~ **legal** restrictions within the polygon (i.e., designated critical habitat), **and to what degree do they affect the agency's ability to manage the polygon** to preserve its wilderness characteristics?
- Are there "cherry-stemmed" roads or other linear features immediately adjacent to the polygon? If so, what would be their influence on the polygon itself? *We presume that the purpose of this question is to look at the cherry-stemmed features that may result in a convoluted polygon boundary. If this is the case, we recommend removing it as the concept is adequately addressed in the first question related to size and configuration of the area. If we misunderstand the intent of the question, please clarify.*
- Does the polygon include any Colorado Roadless Areas? *This question could be removed because it is covered by the bullet above about current legal restrictions.*
- Ancillary considerations: Existing recreation activities (motorized, mechanized, and non-motorized), grazing activities, mining activities, cultural and traditional uses, special uses, current management, etc. *This bullet should be removed as current management or future management trade-offs are inappropriate to consider in the evaluation phase as discussed above.*

#### Wilderness Characteristics Summary Ratings

Our comments above on specific criteria apply to this section on pages 2-3, and hence will not be repeated here. We strongly recommend that the GMUG create a table that describes conditions that would merit ranks of outstanding, high, moderate, or low for each criterion. For instance, see the ranking framework drafted by the Gila National Forest in its Draft Wilderness Evaluation Process Paper, starting at page 5.<sup>7</sup> In doing this, the public can easily see how each criterion was ranked and why. Lastly, it is inappropriate to consider proximity to population centers, roads, and private lands in ranking areas for the degree to which they have wilderness character. See draft process paper, page 2. This criterion has no basis in statute, regulation or policy, and should be removed.

Thank you very much for the opportunity to comment on the draft wilderness evaluation process paper. We look forward to commenting on the draft evaluation report when it becomes available. As always,

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<sup>7</sup> *Supra*, Starting at page 5. While we like the framework that the Gila created, there are elements of the Gila's process paper that we recommended be changed. For instance, we disagreed with the Gila National Forest's approach to manageability, and prefer a ranking system with high/medium/low values as opposed to numeric rankings. Exhibit 3 is an excerpt from the comment letter submitted to the Gila National Forest on the draft evaluation process paper by TWS et al in December 2017.

please do not hesitate to contact us if you have questions, and thank you for your hard work on the forest plan revision process.

With regards,

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#### Cited references

Dietz, M.S., R.T. Belote, G.H. Aplet, & J.L. Aycrigg. 2015. *The world's largest wilderness protection network after 50 years: An assessment of ecosystem representation in the U.S. National Wilderness Preservation System*. *Biological Conservation*, 184: 431-438. Available at <http://www.sciencedirect.com/science/article/pii/S0006320715000944>.

**Exhibit 1: Excerpts from the Q&As Relating to Wilderness Planning Under Chapter 70 of the 2015 Planning Rule Directives, Version 1.1**

**Q: *In conducting an evaluation of “apparent naturalness,” the directives provide the following example for determining “if plant and animal communities appear substantially unnatural”: “past management activities have created a plantation style forest with trees of a uniform species, age, and planted in rows.” FSH 1909.12, Chap. 70, Sec. 72.1(1)(a). What are some other examples of relevant considerations for this evaluation factor?***

**A:** The determination of whether plant and animal communities in an area “appear substantially unnatural” is a professional judgement within the discretion of the Responsible Official, as informed by the Interdisciplinary Team and public input. One possible interpretation of “apparent naturalness” could be based on whether the area “looks natural” to a reasonable person. Using the example provided, a plantation style forest would likely not look natural to a reasonable person and therefore is a relevant factor to consider when evaluating whether the plant and animal communities in an area appear substantially unnatural. Another example might be the presence of invasive non-native species in an area that are so extensive that it dominates the landscape in a readily apparent manner. Other relevant examples may exist and are best identified at the local level. In all instances, such considerations should be well documented.

**Q: *In conducting an evaluation of “apparent naturalness,” should stand composition that is significantly different from historic conditions be taken into consideration?***

**A:** Possibly. If the current stand composition reflects the effects of past management activities (i.e. fire suppression, timber harvest, or other activities), those effects may be taken into account in your evaluation. The ultimate questions are within the Responsible Official’s judgment. Does it appear that the imprints of human management intervention are substantially unnoticeable? Or, has past management left the area with clear indications that the area has been subject to human intervention in the past? See FSH 1909.12, Chap. 70, Sec. 72.1. For example, if fire suppression has not altered the species composition, but has left the stands more dense than they would otherwise have been, that might not weigh as heavily against apparent naturalness, since it may not be as noticeable. On the other hand, if past fire suppression has allowed displacement of fire-dependent species with less fire tolerant species, that change might weigh more heavily against the apparent naturalness of that area because the effects of past human management are more noticeable. It is important to remember, however, that it is difficult in most cases to tie a particular change in stand composition to actual human intervention as opposed to natural variability and change over time. If there is insufficient information to tie particular changes

in stand composition to human intervention, it might not weigh as heavily against your evaluation of the apparent naturalness of the area.

## Exhibit 2: Ecosystem Representation of Protected Areas in the GMUG National Forests

## Appendix 1: Ecosystem Representation of Protected Areas in the GMUG National Forests

These comments address the role of ecosystem representation in the GMUG National Forests' land management planning process – particularly its evaluation of areas that may be suitable for inclusion in the National Wilderness Preservation System (NWPS). As explained below and illustrated by the accompanying maps and data, the GMUG National Forests hosts numerous ecosystem types that are poorly-represented in the NWPS both regionally and nationally. Given the central importance of ecosystem diversity to conserving biological diversity and satisfying the requirements of the 2012 National Forest System Land Management Planning Rule, 36 C.F.R. part 219, the ongoing wilderness evaluation and planning process presents a crucial opportunity for the GMUG National Forests to increase the diversity of ecosystems that are protected as part of the NWPS or through other special designations.

### I. Ecological Importance of Ecosystem Representation in Wilderness and Other Protected Areas

Wilderness and other protected conservation areas are the cornerstones of most regional, national, and international efforts to conserve biological diversity and ecological processes of natural ecosystems (Bertzky *et al.* 2012). Research has shown that protected areas reduce the loss, degradation, and fragmentation of natural habitats (Bruner *et al.* 2001; Naughton-Treves *et al.* 2005) and slow the rate of extinction of threatened species that occur therein (Butchart *et al.* 2012). Conversely, federal public lands in the United States that are managed for a variety of uses including mining, logging, and motorized recreation – and not primarily for conservation purposes – do not have the same benefits. Recognizing the central importance of protected areas in conserving biological diversity, the International Convention on Biological Diversity recommends that at least 17% of the world's terrestrial areas be conserved by 2020 (Woodley *et al.* 2012). To that end, the NWPS already serves as the world's largest national system of highly-protected conservation areas.<sup>1</sup>

Wilderness and other protected areas, however, can help achieve biodiversity targets only if they are located in the right places – that is, if they are ecologically representative of terrestrial ecosystems. This “representation” approach assumes that for protected areas to conserve genetic, species, and community diversity – as well as the composition, structure, function, and evolutionary potential of natural systems – they

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<sup>1</sup> The NWPS contains 21 million hectares in 690 units, covering nearly 1/5 of what the International Union for Conservation of Nature (IUCN) classifies as “category 1 areas,” or the most natural and highly protected areas worldwide. By contrast, the IUCN classifies general Forest Service matrix lands as “GAP Status 3” – “Area having permanent protection from conversion of natural land cover for the majority of area. Subject to extractive uses of either broad, low-intensity type (eg. Logging) or localized intense type (eg. Mining).” – which is not considered a “protected” category for biodiversity purposes.

must encompass the full variety of ecosystems (Olson & Dinerstein 1998; Margules & Pressey 2000). In other words, protection of distinct ecological communities in turn protects the species that rely on them and the natural ecological processes that are characteristic of those ecosystems (Rodrigues *et al.* 2004; Bunce *et al.* 2013). According to the Convention on Biological Diversity, the percentage of terrestrial ecosystems protected by 2020 (with a target of 17%) is one indicator of how well ecosystems are represented throughout the global network of protected conservation areas (Woodley *et al.* 2012).

Despite its importance, our analysis of ecosystem representation in the NWPS (Dietz *et al.* 2015) – which is described in detail below – shows that the NWPS suffers from a significant under-representation of many ecosystems. Over 20% (117) of the 553 types of unique ecosystems occurring on federal lands in the contiguous United States are not included in the NWPS. Even more concerning is that less than half of those 553 ecosystems are more than nominally represented: only 244 ecosystem types have at least 5% of their federal land area protected in the NWPS. And at a more reasonable 20% target for biodiversity conservation purposes, that number falls to only 113 ecosystems with at least 20% of their federal land area protected in the NWPS. 95% of that diversity was achieved by 1994, and wilderness designations over the past 15 years have added only 1 new ecosystem type above the 20% threshold. Moreover, there is not a clear correlation between how rare an ecosystem is on federal lands and how well it is represented in the NWPS. We found that there are many ecosystem types that are common on federal lands (covering over 100,000 hectares) but are poorly represented in the NWPS.

With the Wilderness Act over 50 years old (signed into law on September 3, 1964), it is important to begin to remedy this under-representation of ecosystems in the NWPS. Human population growth, climate change, and pressure for development and extraction of natural resources make wilderness and other protected areas increasingly vital to conserve biological diversity. Given those pressures and stressors, we must establish a network of connected wilderness and other protected areas that represent the full expression of ecosystem diversity.

## II. Regulatory Requirements to Evaluate Ecosystem Representation

Given the regional, national, and global importance of ecosystem representation in the NWPS and other protected areas, the 2012 National Forest System Land Management Planning Rule requires the Forest Service to evaluate and incorporate ecosystem representation into its forest assessment and planning processes. Indeed, protecting ecosystem diversity is a central purpose of forest planning under the Rule:

Plans will guide management of [National Forest System] land so that they are ecologically sustainable and contribute to social and economic sustainability; ***consist of ecosystems and watersheds with*** ecological

integrity and ***diverse plant and animal communities***; and have the capacity to provide people and communities with ecosystem services and multiple uses that provide a range of social, economic, and ecological benefits for the present and into the future.

36 C.F.R. § 219.1(c) (emphasis added).

To satisfy the 2012 Planning Rule’s ecosystem diversity mandate, forests are first required to identify and evaluate existing designated areas, including wilderness, and the potential need and opportunity for additional designated areas as part of the assessment phase. *Id.* § 219.6(b)(15). In doing so, the assessment should consider, among other things, whether there are “specific land types or ecosystems present in the plan area that are not currently represented or minimally represented within the wilderness system or system of research natural areas.” Forest Service Handbook (FSH) 1909.12, ch. 10, § 14 (Feb. 14, 2013 draft).

Next, during the plan development or revision phase, the Forest Service is required to “[i]dentify and evaluate lands that may be suitable for inclusion in the [NWPS] and determine whether to recommend any such lands for wilderness designation.” 36 C.F.R. § 219.7(c)(2)(v). In evaluating potential wilderness areas, the agency must, among other things, “[e]valuate the degree to which the area may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.” FSH 1909.12, ch. 70, § 72.1(4); *see also* 16 U.S.C. § 1131(c)(4) (wilderness, as defined by the Wilderness Act of 1964, “may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value”). “Such features or values may include [r]are plant or animal communities or rare ecosystems,” with rare being “determined locally, regionally, nationally, or within the system of protected designations.” FSH 1909.12, ch. 70, § 72.1(4).

In addition to identifying and evaluating areas to recommend for wilderness designation, the 2012 Planning Rule also requires the agency to “[i]dentify existing designated areas other than [wilderness] and determine whether to recommend any additional areas for designation.” 36 C.F.R. § 219.7(c)(2)(vii). Those special designations may include, for example, ecological areas, botanical areas, or Research Natural Areas (RNAs), which are designed to “[m]aintain a wide spectrum of high quality representative areas that represent the major forms of variability . . . that, in combination, form a national network of ecological areas for research, education, and maintenance of biological diversity . . . [and s]erve as a baseline area for measuring long-term ecological changes.” Forest Service Manual 4063.02; *see also* 36 C.F.R. § 219.19 (Forest Service may designate RNAs as part of planning process).

Complementing the requirement to consider ecosystem representation in determining suitability for wilderness and other special designations, the 2012 Planning Rule directs that plans generally provide for ecological sustainability and integrity and “the diversity

of plant and animal communities and the persistence of native species.” 36 C.F.R. §§ 219.8-219.9. The Forest Service cannot satisfy those substantive mandates without adequately protecting ecosystem diversity in the plan area. For example, plans “must include plan components, including standards or guidelines, to maintain or restore the diversity of ecosystems and habitat types[, including r]are . . . plant and animal communities.” *Id.* § 219.9(a)(2). With conflicting management and resource demands and human-caused stressors such as climate change that threaten ecosystem diversity and integrity, plans simply cannot restore or maintain the diversity of plant and animal communities absent a robust network of protected areas that adequately represent that diversity.

Collectively, these various procedural and substantive mandates commit the agency to a meaningful evaluation and consideration of under-represented and rare ecosystems, and to formulating and adopting plan components, recommendations, and designations that adequately protect and preserve the forest’s diversity of plant and animal communities. In doing so, the agency is required to use “the best available scientific information.” *Id.* § 219.3. As described in the methodology section below, we believe our analysis of ecosystem representation represents the best available scientific information, and we encourage the Forest Service to incorporate it into its wilderness evaluation and the broader planning process.

### III. Methods and Analysis of Ecosystem Representation

We conducted an analysis of ecosystem representation in wilderness at the national- and forest-level scales to provide the best available scientific information for the ongoing wilderness evaluation and forest planning processes.

According to the U.S. Geological Survey (USGS), the contiguous United States contains 565 terrestrial, non-developed ecosystems. In this study, we analyzed representation of those ecosystems by comparing their areas in the NWPS with their areas on federal land at both the national and forest levels in order to calculate a percent representation:

Equation 1:  $(\text{area of ecosystem in the NWPS} / \text{area of ecosystem on federal land}) * 100^2$

Equation 2:  $(\text{area of ecosystem in the NWPS on the GMUG NF} / \text{area of ecosystem on the GMUG NF}) * 100$

We conducted these calculations at the finest scale for which consistent, spatially-explicit vegetative land-cover data is available: the 6<sup>th</sup> level of the National Vegetation

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<sup>2</sup> We used federal land, as opposed to all land, within the contiguous United States to better assess where ecosystems are under-represented on lands potentially available for wilderness designation.

Classification System (NVCS 2008).<sup>3</sup> That data is from the USGS Gap Analysis Program (GAP) national land-cover data version 2 at 30-meter resolution (USGS 2011).

We obtained spatial data of the NWPS from the University of Montana College of Forestry and Conservation's Wilderness Institute at wilderness.net, which maintains the most up-to-date spatial data on wilderness areas. To map federal land area, we used the U.S. Protected Areas Database (PAD-US) version 1.3 (USGS 2012), which includes geographic boundaries, land ownership, land management, management designation, parcel name, area, and protection category.<sup>4</sup>

We overlaid the NWPS and all federal lands with land-cover data in a Geographic Information System (ArcGIS 10.2) to calculate and compare the total area of each ecosystem within the NWPS and federal land. We then calculated the percent of each ecosystem within the NWPS based on all area occurring on federal land (Equation 1, above).<sup>5</sup> This was part of a national assessment that we conducted (Dietz *et al.* 2014 (*in revision*)).

We did the same calculations at the forest level. We extracted land-cover data and clipped it to the forest boundary, and then calculated the percent of each ecosystem within the GMUG's 10 existing wilderness areas based on all federal land area occurring on the Forest (Equation 2, above).

Next we classified representation for each scale into four classes (<5%, 5-9.9%, 10-19.9%, ≥20%) and mapped them across the entire national forest. We considered ecosystems with <19.9% of their total area in the NWPS as inadequately represented.

We then brought the Colorado Roadless Areas (CRAs) for the GMUG National Forest into Arc and created a new shapefile that included only the CRAs. This allowed us to focus our analysis on the areas that are potentially suitable for wilderness designation by tabulating the area of each ecosystem occurring within each CRA (see attached matrix, "Ecosystem Composition of Colorado Roadless Areas.xlsx"). Values within the matrix are the estimated acres of each ecosystem occurring within each CRA.

We used these data to calculate the proportion (%) of each CRA that is composed of ecosystems inadequately represented in the NWPS by each of the 3 lower

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<sup>3</sup> The NVCS classifications are as follows: 1) Class; 2) Subclass; 3) Formation; 4) Division; 5) Macrogroup; **6) Group (a.k.a. ecological system, to which we refer in this study as "ecosystem")**; 7) Alliance; and 8) Association.

<sup>4</sup> The PAD-US is a national inventory of terrestrial and marine protected areas that are managed to preserve biological diversity and other natural, recreation, and cultural uses.

<sup>5</sup> For example, when we say "boreal aspen-birch forest has 19% representation in NWPS," we mean that 19% of all federal land encompassing that ecosystem type is protected as wilderness in the NWPS.

representation classes (<5%, 5-9.9%, 10-19.9%) and for both scales of representation. For example, we calculated that 99% of Calamity Basin is in under-represented ecosystem types.

#### IV. Results

Our analysis shows that a majority of the CRAs contain high proportions of inadequately represented ecosystems at both the forest-level and national scales (Tables 1 & 2; Maps 2 & 3). Additionally, all of the CRAs contain at least one underrepresented ecosystem. Out of the 76 CRAs on the GMUG, over half of the units are mostly (>50%) composed of underrepresented ecosystems on both forest and federal levels. Additionally, over 550,000 acres of the 898,819 acres of CRAs on the forest are underrepresented on forest and federal levels.

In many instances, the addition of one CRA would elevate particular ecosystems into adequate representation (Table 4). For example, adding Kannah Creek CRA into the NWPS would elevate the Inter-Mountain Basins Mat Saltbush Shrubland into adequate representation (>20% representation). Even one of the more prevalent ecosystems on the GMUG, the Colorado Plateau Pinyon-Juniper Woodland, could achieve adequate representation with the addition of 3 CRAs (Kannah Creek, Sunnyside, and Kelso Mesa). In addition to these ecosystems, 7 others could achieve adequate representation on the forest level with the addition of one CRA.

More broadly, our analysis found that only 11 of the 47 ecosystem types found on the GMUG are adequately represented in wilderness on the forest level (Table 3, Tabs 1 & 2). The story is even more extreme on the federal level, with only 7 out of the 47 ecosystems showing adequate representation (Table 3, Tabs 1 & 3). Underrepresented ecosystems on the forest level cover over 58% (1,718,474 acres) of the GMUG, with federally underrepresented ecosystems spanning over 41% (742,213 acres) of the forests.

Notably, many under-represented ecosystem types on the GMUG are also some of the most common (Table 3, Tabs 2 & 3). The most prevalent ecosystem on the GMUG, the Rocky Mountain Aspen Forest and Woodland, covers over 17% (524,280 acres) of the GMUG but is underrepresented on the both forest and federal levels. Four other ecosystems span over 100,000 acres of the forest but are inadequately represented on forest and federal levels and include the Rocky Mountain Gambel Oak-Mixed Montane Shrubland, the Rocky Mountain Lodgepole Pine Forest, the Inter-Mountain Basins Montane Sagebrush Steppe, and the Colorado Plateau Pinyon-Juniper Woodland.

The attached maps and tables depict these results in detail, showing the following:

Map 1 “CO Roadless Units, GMUG National Forest”: Depicts each unit (polygon) in CRA inventory, outlined in black with hash marks, and with the forest boundary shaded green.

Map 2 “Ecosystem Representation on the Federal Level”: Color depiction of the results of Equation 1 (above), showing the level of representation in the NWPS of each ecosystem type at the national scale. For example, areas shown in red depict ecosystems that are represented in the NWPS at less than 5% of all available federal land. [CRAs outlined in black with cross-hatching]

Map 3 “Ecosystem Representation on the Forest Level”: Color depiction of the results of Equation 2 (above), showing the level of representation in the NWPS of each ecosystem type at the forest level. [CRAs outlined in black with cross-hatching]

Table 1, Tabs 1 & 2 “GMUG CRAs Representation”: Proportion (%) and acreage of each CRA composed of under-represented ecosystem types on the GMUG National Forest based on forest-level (Tab 1) or national-level (Tab 2) representation. Representation of each ecosystem type was quantified based on all available area on federal land and the individual forest. All ecosystems with <20% representation in the NWPS at each scale were broken into 3 levels of representation (<5%, 5-9.9%, and 10-19.9%). This table allows one to prioritize CRAs by proportion of land area as well as acreage that is composed of underrepresented ecosystems, at three levels.

Table 2 “Ecosystem Composition of Colorado Roadless Areas”: Values within the matrix are the estimated acres of each ecosystem type occurring within each CRA. This table depicts the specific ecosystem composition of each CRA.

Table 3, Tabs 1-3 “GMUG National Forest Ecosystems Representation”: These tables depict which ecosystems are under-represented at the forest-level and national scales. Tab 1 shows a complete list of ecosystem types found on the GMUG National Forest, and the proportion of each type in the NWPS at the forest-level and national scales. Tabs 2 and 3 show representation breakdowns at the three levels (<5%, 5-9.9%, and 10-19.9%) at the forest-level and national scales.

Table 4 “CRA Analysis of Ecosystem Composition”: This table shows the estimated acres of each ecosystem type occurring within each CRA unit. This table also shows how many acres of additional protection are needed to elevate a particular ecosystem into adequate representation, and how many units would be needed (if applicable) to achieve adequate representation on the forest level.

## V. Recommendations

Sufficient ecosystem representation in the NWPS and other protected areas is crucial to achieving ecological integrity of the diverse plant and animal communities found in the GMUG. As described above and depicted in the attached maps and tables, our analysis shows that under-representation of ecosystems in the NWPS is a significant problem on the GMUG. Our analysis also shows that the vast majority of lands in the CRAs contain under-represented ecosystem types. Thus, the ongoing wilderness evaluation and planning process presents the Forest Service with a critical opportunity to prioritize protection of ecosystem diversity and begin to remedy the under-representation of numerous ecosystem types in the NWPS.

To that end, we urge the GMUG to use the representation information in the attached tables and maps and described above to evaluate the importance of each inventoried area in achieving diverse ecosystem representation in wilderness at the regional and national scales.<sup>6</sup> In addition, the forest should use this information more broadly in its planning process and determinations whether to designate or recommend for designation other areas such as RNAs, ecological or botanical areas, etc. As described above, we believe that this information is the best available science on ecosystem representation, which the agency is legally required to use in its planning process.

If you have any questions about the analysis or data, or would like to have the data in another format, please contact Phil Hartger ([phil\\_hartger@twc.org](mailto:phil_hartger@twc.org)).

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<sup>6</sup> For example, Region 5 has made exceptional efforts to incorporate our analysis into the wilderness evaluation processes for the Inyo, Sequoia, and Sierra National Forests. The Region's wilderness team prepared a data summary for each inventoried unit, ranked by percent composition of under-represented ecosystems, to assess the relative opportunities in each unit to enhance ecosystem diversity. Those summaries are attached hereto.

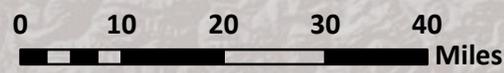
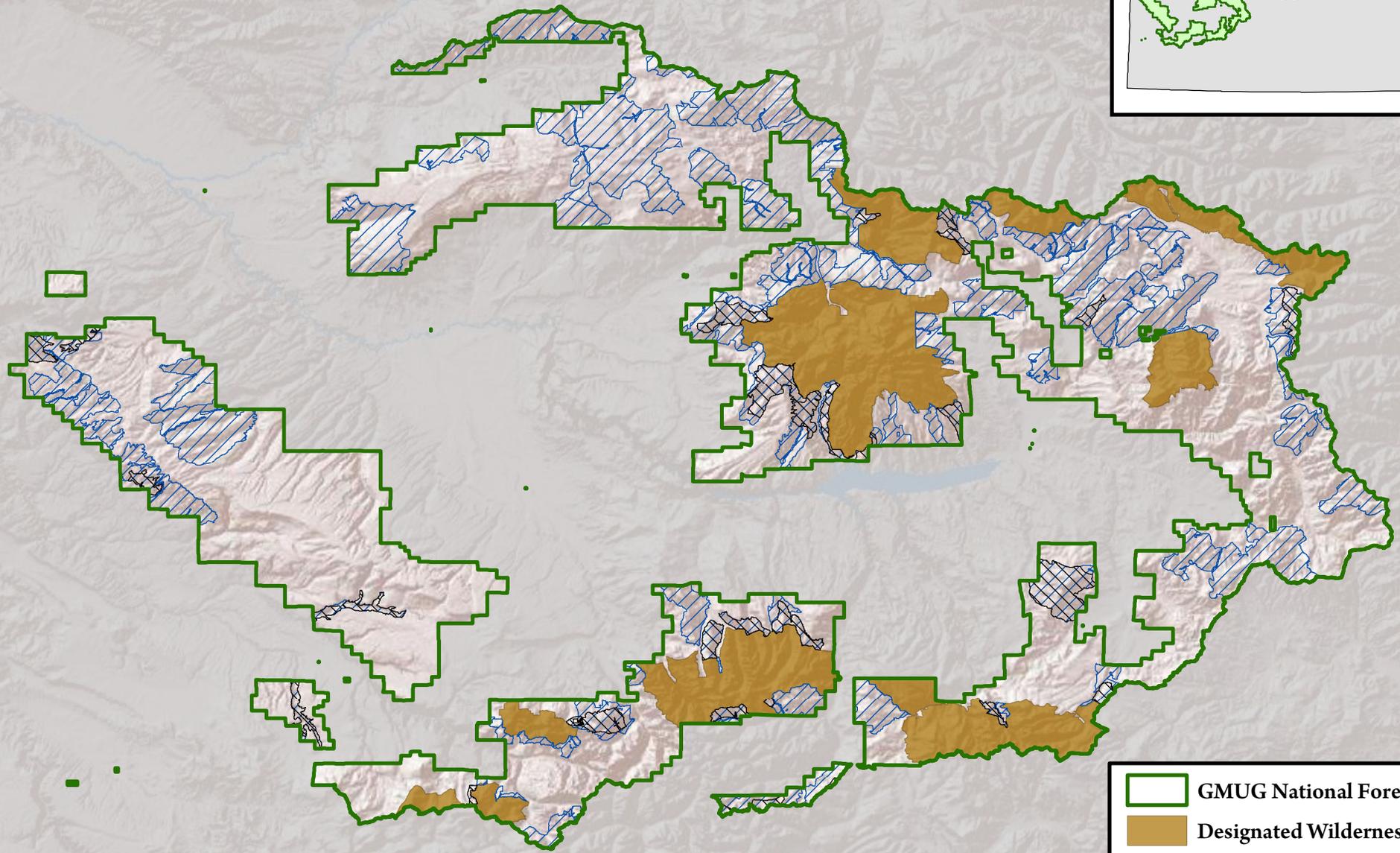
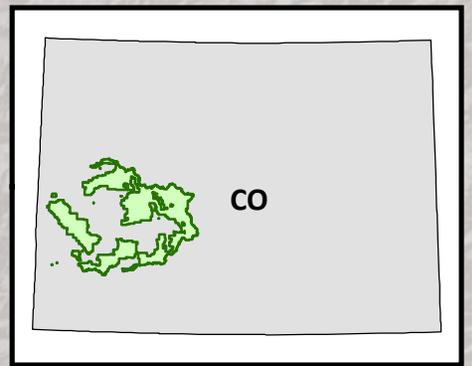
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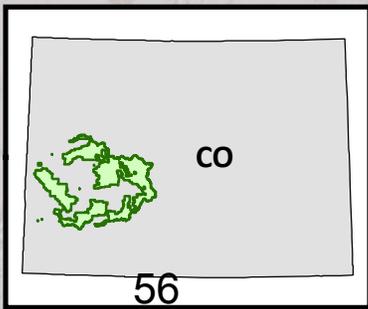
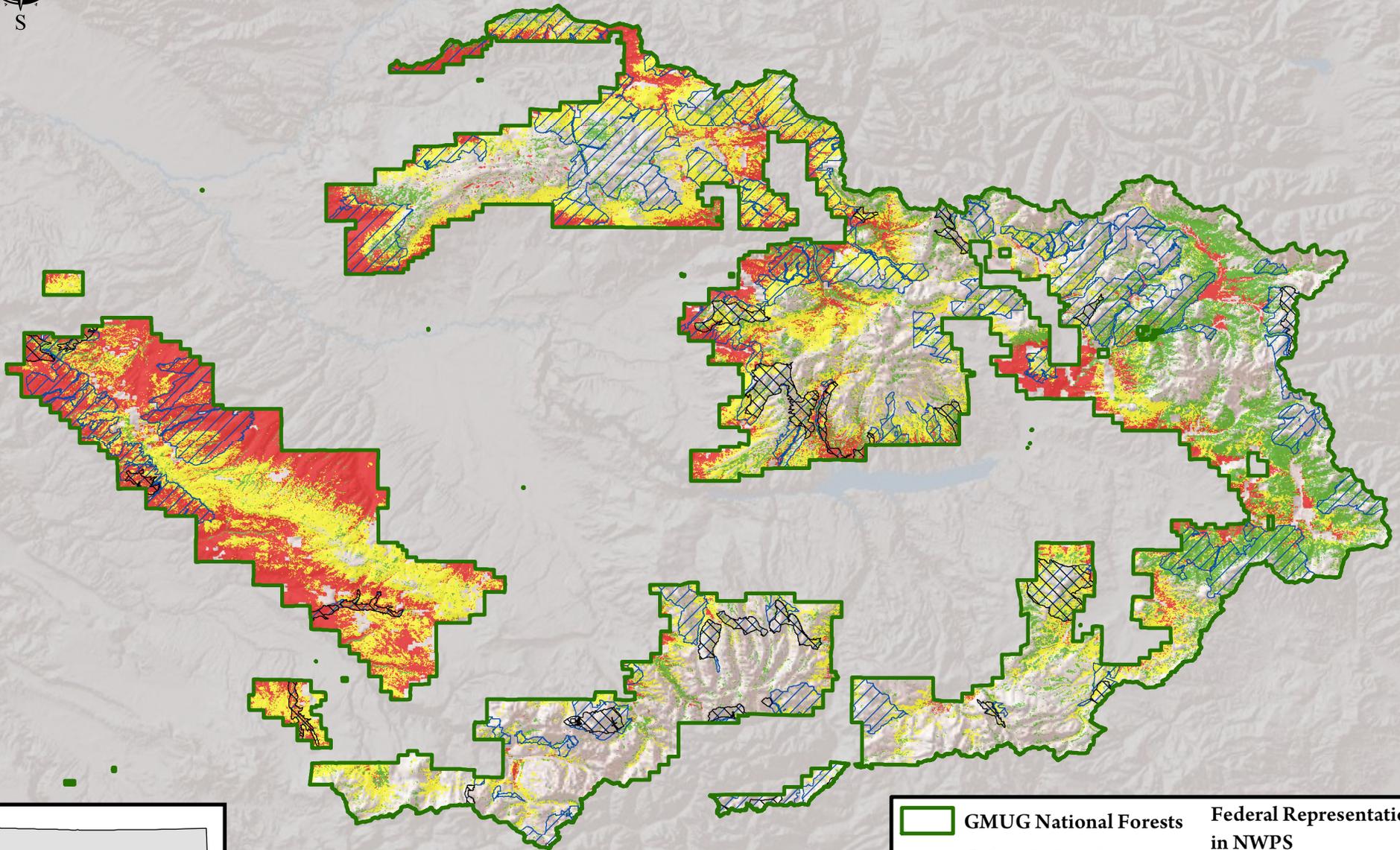
# MAP 1: COLORADO ROADLESS AREAS GMUG NATIONAL FORESTS



-  GMUG National Forests
-  Designated Wilderness
-  Colorado Roadless Areas, Upper Tier
-  Colorado Roadless Areas



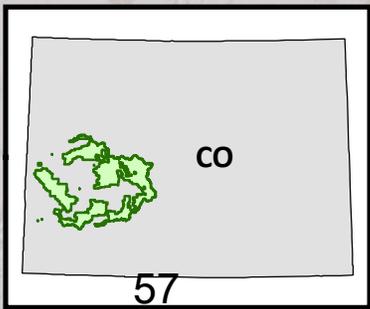
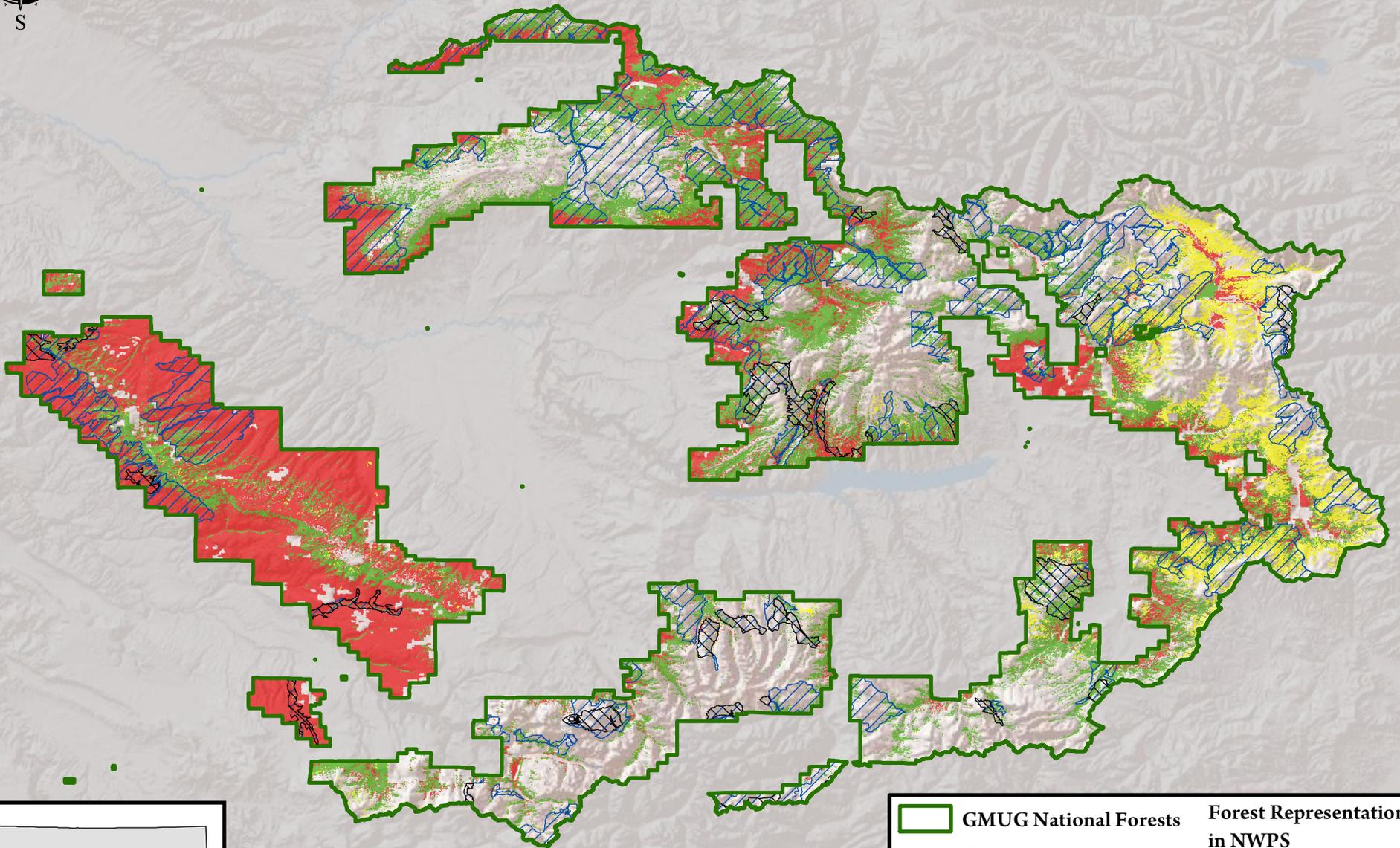
# MAP 2: ECOSYSTEM REPRESENTATION ON THE FEDERAL LEVEL GMUG NATIONAL FORESTS



GMUG National Forests	<b>Federal Representation in NWPS</b>
Colorado Roadless Areas, Upper Tier	< 5%
Colorado Roadless Areas	5 - 9.9%
	10 - 20%
	> 20%

0 6 12 18 24  
 Miles

# MAP 3: ECOSYSTEM REPRESENTATION ON THE FOREST LEVEL GMUG NATIONAL FORESTS



GMUG National Forests	<b>Forest Representation in NWPS</b>
Colorado Roadless Areas, Upper Tier	< 5%
Colorado Roadless Areas	5 - 9.9%
	10 - 20%
	> 20%

0 6 12 18 24  
 Miles

**Table 1, Tab 1: GMUG National Forests, underrepresented Ecological Systems ("Ecosystems")**

Colorado Roadless Unit	Forest Representation % Coverage				Forest Representation Acreage				
	< 5%	5 - 9.9%	10 - 19.9%	< 20%	< 5% (Acres)	5 - 9.9% (Acres)	10 - 19.9% (Acres)	< 20% (Acres)	Total Roadless Acreage
Agate Creek	0.5	34.4	5.0	39.8	54	4,065	592	4,710	11,832
Calamity Basin	92.2	0.0	7.4	99.5	11,478	0	916	12,394	12,451
Cannibal Plateau	0.3	0.1	13.5	13.9	49	8	1,963	2,020	14,497
Canyon Ck/Antero	0.0	0.2	10.0	10.1	0	2	159	162	1,595
Canyon Creek	0.5	24.2	4.6	29.3	53	2,611	496	3,160	10,797
Carson	0.7	0.0	5.7	6.5	43	2	341	386	5,966
Cataract	0.0	0.0	0.2	0.3	0	4	24	28	10,018
Cimarron Ridge	3.6	0.5	24.5	28.6	449	61	3,094	3,604	12,605
Cochetopa	2.6	1.5	52.9	57.1	173	101	3,504	3,778	6,622
Crystal Peak	0.0	0.1	18.8	18.9	3	7	2,169	2,178	11,513
Curecanti	16.2	0.2	42.9	59.4	2,011	28	5,315	7,354	12,378
Currant Creek	37.5	0.0	57.6	95.0	4,027	0	6,187	10,214	10,747
Deer Creek	2.8	0.8	64.3	67.9	264	72	6,068	6,404	9,437
Double Top	0.9	0.9	26.5	28.3	217	203	6,294	6,714	23,731
East Elk	10.5	0.6	46.3	57.4	630	36	2,784	3,450	6,010
Failes Creek/Soldier Creek	1.3	0.4	18.3	20.0	119	34	1,634	1,786	8,950
Gothic	0.2	0.6	19.1	19.9	12	36	1,103	1,151	5,772
Granite Basin	3.8	17.3	22.2	43.3	965	4,426	5,653	11,044	25,520
Hope Lake	0.0	0.5	2.3	2.8	0	38	189	227	8,127
Italian Mountain	0.0	6.3	4.4	10.7	0	558	395	953	8,914
Johnson Basin	71.1	0.0	28.4	99.6	8,473	0	3,388	11,861	11,911
Last Dollar/Sheep Creek	1.9	0.5	27.9	30.3	120	29	1,750	1,900	6,281
Little Cimarron	0.5	1.1	12.9	14.5	19	46	545	610	4,221
Matterhorn	0.0	0.3	7.9	8.2	0	9	279	288	3,533
Mendicant	11.6	0.2	38.9	50.6	2,211	42	7,422	9,674	19,102
Mirror Lake	0.0	2.1	3.1	5.3	0	128	187	316	6,004
Naturita Canyon	92.2	0.0	7.8	100.0	4,237	0	358	4,595	4,595
Pilot Knob	29.3	0.1	69.2	98.5	5,045	11	11,909	16,965	17,218
Salt Creek	5.6	0.0	60.4	66.0	508	1	5,428	5,937	8,993
Steuben	18.8	1.1	66.7	86.6	646	37	2,296	2,979	3,440

Sunnyside	84.2	0.0	2.1	86.3	8,966	3	220	9,189	10,648
Texas Creek	0.0	64.5	1.0	65.5	0	1,700	26	1,726	2,634
Battlements	26.6	0.2	49.7	76.5	6,485	58	12,139	18,682	24,421
Hightower	29.4	0.0	69.7	99.1	1,053	0	2,493	3,547	3,579
Kelso Mesa	79.7	0.0	20.3	99.9	28,248	0	7,185	35,433	35,458
Turret Ridge	5.0	1.8	6.3	13.0	271	98	343	712	5,460
Union	0.0	30.5	3.4	33.9	0	476	53	529	1,560
Whitehouse Mountain	1.2	0.3	6.5	8.0	164	42	922	1,128	14,164
Horsefly Canyon	82.6	0.0	17.4	100.0	5,141	0	1,083	6,224	6,224
Baldy	28.9	0.0	50.1	79.0	624	0	1,080	1,704	2,159
Wilson	12.4	0.1	17.8	30.2	326	2	467	794	2,627
Windy Point	80.9	0.0	19.0	99.9	10,295	0	2,424	12,719	12,727
Matchless Mountain	7.5	37.0	14.5	59.1	2,030	10,003	3,919	15,953	27,000
North Henson	0.0	0.2	0.3	0.5	0	1	2	3	596
Munsey/Erickson	27.6	0.0	68.4	96.0	970	0	2,401	3,371	3,512
Horse Ranch Park	3.2	0.0	73.0	76.1	123	0	2,834	2,957	3,884
Willow Creek	3.8	2.0	46.3	52.1	11	6	136	153	294
Mineral Mountain	1.8	0.3	38.7	40.8	43	6	912	962	2,355
Crystal Creek	2.6	49.2	13.2	65.1	14	262	70	346	532
Cottonwoods	29.1	0.1	51.0	80.2	3,259	12	5,725	8,996	11,219
Dominguez	95.6	0.0	4.0	99.6	11,965	0	494	12,459	12,513
Long Canyon	76.6	0.0	22.9	99.5	13,121	0	3,926	17,048	17,132
Schofield Pass	1.2	0.0	36.6	37.8	10	0	317	327	866
Beckwiths	16.9	0.1	43.8	60.7	3,119	10	8,058	11,187	18,417
Huntsman Ridge	19.5	0.4	68.0	88.0	2,063	46	7,191	9,301	10,574
Flattops/Elk Park	4.6	1.1	30.3	36.0	3,444	866	22,950	27,260	75,684
Flat Irons	47.6	0.3	51.9	99.8	5,468	32	5,965	11,465	11,494
Cochetopa Hills	7.1	41.9	22.4	71.4	3,428	20,320	10,861	34,609	48,464
Electric Mountain	14.2	0.1	62.2	76.5	1,384	9	6,050	7,443	9,732
Castle	5.1	0.1	39.2	44.5	483	6	3,684	4,172	9,386
Sunset	25.8	0.0	66.2	92.0	1,494	0	3,828	5,323	5,785
American Flag Mountain	0.0	22.6	3.6	26.2	3	2,665	419	3,086	11,788
Sawtooth	7.3	5.8	41.1	54.3	1,669	1,336	9,399	12,404	22,841
Poverty Gulch	2.2	1.1	16.1	19.3	117	59	866	1,042	5,391

Beaver	18.0	2.3	59.8	80.1	661	85	2,198	2,945	3,676
Soap Creek	44.4	0.0	40.4	84.8	3,581	1	3,254	6,837	8,062
Kannah Creek	60.1	0.0	26.2	86.4	20,727	12	9,040	29,780	34,484
Clear Fork	13.4	0.5	61.2	75.1	3,265	119	14,901	18,285	24,333
Whetstone	1.3	0.5	24.4	26.2	204	72	3,768	4,045	15,428
Mount Lamborn	39.7	0.1	37.1	76.8	8,926	12	8,338	17,276	22,500
Turner Creek	3.7	0.3	56.4	60.3	469	33	7,235	7,737	12,838
Unawep	68.7	0.0	28.1	96.8	8,338	0	3,413	11,750	12,135
Flattop Mountain	41.1	0.0	35.4	76.5	2,227	2	1,914	4,143	5,413
McClure Pass	38.7	0.0	41.2	79.9	132	0	140	272	340
Tomahawk	31.9	0.1	60.8	92.8	4,092	17	7,803	11,911	12,839
Sanford Basin	0.5	15.4	4.3	20.2	62	1,988	550	2,600	12,871

**Table 1, Tab 2: GMUG National Forests, underrepresented Ecological Systems ("Ecosystems")**

Colorado Roadless Unit	Federal Representation % Coverage				Federal Representation Acreage				
	< 5%	5 - 9.9%	10 - 19.9%	< 20%	< 5% (Acres)	5 - 9.9% (Acres)	10 - 19.9% (Acres)	< 20% (Acres)	Total Roadless Acreage
Agate Creek	0.1	1.1	38.7	39.9	10	135	4,575	4,721	11,832
Calamity Basin	87.2	11.3	1.1	99.5	10,858	1,404	132	12,394	12,451
Cannibal Plateau	0.2	12.5	3.9	16.6	32	1,809	567	2,408	14,497
Canyon Ck/Antero	0.0	0.1	10.7	10.8	0	1	171	172	1,595
Canyon Creek	0.4	1.1	29.0	30.5	43	119	3,136	3,298	10,797
Carson	0.0	6.5	2.8	9.2	0	386	165	551	5,966
Cataract	0.1	0.1	1.2	1.4	13	7	124	144	10,018
Cimarron Ridge	0.3	25.4	4.8	30.5	40	3,200	601	3,840	12,605
Cochetopa	0.8	43.9	11.5	56.2	54	2,905	760	3,719	6,622
Crystal Peak	0.0	18.3	3.3	21.7	4	2,112	381	2,497	11,513
Curecanti	14.7	32.3	15.5	62.6	1,823	4,001	1,922	7,746	12,378
Currant Creek	37.4	57.0	1.0	95.4	4,016	6,125	108	10,249	10,747
Deer Creek	2.6	47.6	22.1	72.3	245	4,495	2,082	6,822	9,437
Double Top	0.6	20.1	13.3	34.0	149	4,764	3,150	8,063	23,731
East Elk	8.0	24.0	29.7	61.7	481	1,441	1,784	3,706	6,010
Failes Creek/Soldier Creek	0.5	14.8	8.5	23.7	42	1,322	757	2,121	8,950
Gothic	0.2	12.8	20.3	33.3	12	738	1,172	1,922	5,772
Granite Basin	3.2	12.7	30.1	46.0	805	3,241	7,682	11,727	25,520
Hope Lake	0.7	1.7	2.9	5.3	59	135	234	427	8,127
Italian Mountain	0.1	2.1	9.6	11.7	6	183	855	1,045	8,914
Johnson Basin	60.8	31.8	7.0	99.6	7,242	3,786	834	11,862	11,911
Last Dollar/Sheep Creek	0.4	27.2	11.0	38.6	28	1,709	689	2,425	6,281
Little Cimarron	0.2	11.4	7.1	18.8	10	481	300	792	4,221
Matterhorn	0.0	7.3	6.3	13.6	0	257	222	479	3,533
Mendicant	8.3	38.7	9.9	56.9	1,579	7,385	1,898	10,862	19,102
Mirror Lake	0.4	0.5	4.5	5.5	26	29	273	328	6,004
Naturita Canyon	50.2	42.1	7.7	100.0	2,307	1,935	352	4,595	4,595
Pilot Knob	28.1	67.2	3.4	98.6	4,830	11,576	577	16,984	17,218
Salt Creek	2.5	59.1	5.5	67.1	225	5,313	497	6,035	8,993
Steuben	15.0	41.6	30.8	87.4	518	1,430	1,059	3,007	3,440

Sunnyside	84.1	0.5	15.4	100.0	8,955	55	1,637	10,648	10,648
Texas Creek	0.0	0.8	64.7	65.5	0	21	1,705	1,726	2,634
Battlements	26.0	42.9	11.7	80.6	6,348	10,474	2,856	19,679	24,421
Hightower	28.6	69.8	0.8	99.2	1,023	2,497	30	3,549	3,579
Kelso Mesa	72.3	23.5	4.1	99.9	25,648	8,317	1,468	35,433	35,458
Turret Ridge	0.2	11.6	3.2	15.0	10	636	173	819	5,460
Union	0.1	0.3	35.2	35.6	1	5	548	555	1,560
Whitehouse Mountain	0.3	5.2	4.7	10.2	49	734	661	1,444	14,164
Horsefly Canyon	71.8	12.9	15.3	100.0	4,469	802	953	6,224	6,224
Baldy	25.9	48.5	5.5	79.8	558	1,047	118	1,723	2,159
Wilson	0.2	29.9	0.7	30.7	4	785	17	807	2,627
Windy Point	70.6	26.1	3.3	99.9	8,982	3,318	419	12,719	12,727
Matchless Mountain	4.1	10.0	45.7	59.8	1,112	2,692	12,344	16,148	27,000
North Henson	0.0	0.5	0.0	0.5	0	3	0	3	596
Munsey/Erickson	25.7	52.0	19.4	97.1	902	1,827	683	3,412	3,512
Horse Ranch Park	2.3	73.0	5.5	80.7	89	2,835	213	3,136	3,884
Willow Creek	0.0	49.7	3.3	53.0	0	146	10	156	294
Mineral Mountain	0.0	31.9	7.2	39.1	0	751	169	920	2,355
Crystal Creek	0.0	2.6	64.1	66.7	0	14	341	355	532
Cottonwoods	21.6	53.1	5.7	80.4	2,427	5,961	636	9,024	11,219
Dominguez	93.2	4.9	1.9	100.0	11,660	616	238	12,513	12,513
Long Canyon	63.8	27.5	8.2	99.5	10,938	4,713	1,396	17,048	17,132
Schofield Pass	1.1	24.0	35.1	60.2	10	208	304	522	866
Beckwiths	14.9	35.9	15.2	66.0	2,748	6,610	2,794	12,153	18,417
Huntsman Ridge	18.9	61.9	11.9	92.8	2,002	6,547	1,262	9,810	10,574
Flattops/Elk Park	2.8	25.3	11.5	39.7	2,136	19,175	8,723	30,035	75,684
Flat Irons	44.0	28.5	27.3	99.8	5,053	3,280	3,138	11,471	11,494
Cochetopa Hills	3.3	9.4	59.2	71.8	1,581	4,544	28,681	34,806	48,464
Electric Mountain	5.1	67.4	4.7	77.2	498	6,557	455	7,510	9,732
Castle	0.5	37.3	8.4	46.1	44	3,501	784	4,328	9,386
Sunset	16.0	74.3	2.0	92.3	924	4,298	116	5,338	5,785
American Flag Mountain	0.1	0.9	26.1	27.1	17	101	3,073	3,190	11,788
Sawtooth	3.1	41.8	11.7	56.7	705	9,553	2,682	12,940	22,841
Poverty Gulch	2.2	9.3	20.4	31.8	118	499	1,100	1,717	5,391

Beaver	15.4	27.4	38.3	81.1	565	1,007	1,409	2,981	3,676
Soap Creek	41.5	25.7	21.6	88.8	3,346	2,076	1,740	7,162	8,062
Kannah Creek	58.6	23.5	10.1	92.1	20,200	8,091	3,482	31,773	34,484
Clear Fork	12.6	58.1	6.5	77.2	3,077	14,128	1,574	18,779	24,333
Whetstone	1.0	19.9	14.6	35.5	153	3,073	2,255	5,482	15,428
Mount Lamborn	37.9	33.2	12.3	83.3	8,522	7,470	2,757	18,749	22,500
Turner Creek	2.2	51.6	10.7	64.5	288	6,621	1,372	8,282	12,838
Unawep	56.5	20.5	20.8	97.8	6,852	2,491	2,527	11,869	12,135
Flattop Mountain	29.2	42.1	9.3	80.6	1,581	2,279	504	4,364	5,413
McClure Pass	0.0	79.2	0.7	79.9	0	270	2	272	340
Tomahawk	27.1	61.0	4.8	92.9	3,481	7,828	615	11,923	12,839
Sanford Basin	0.5	2.3	18.1	20.9	67	296	2,326	2,689	12,871

**Table 2: Ecosystem Composition of Colorado Roadless Areas**

*Values are the estimated acres of each ecosystem occurring within each Wilderness Inventory Unit*

Ecosystem	Colorado Roadless Areas								
	Agate Creek	Calamity Basin	Cannibal Plateau	Canyon Ck/Antero	Canyon Creek	Carson	Cataract	Cimarron Ridge	Cochetopa
Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	23	151	18	0	1	43	0	417	27
Rocky Mountain Aspen Forest and Woodland	70	784	1,401	1	52	334	3	2,639	1,760
Rocky Mountain Lodgepole Pine Forest	4,060	0	0	2	2,600	0	0	12	101
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	3,416	6	4,040	263	2,671	1,492	429	4,504	1,679
Rocky Mountain Subalpine Mesic Spruce-Fir Forest and Woodland	2,749	51	2,848	17	2,052	2,180	774	4,061	622
Rocky Mountain Subalpine-Montane Limber-Bristlecone Pine Woodland	6	0	0	0	74	0	0	0	254
Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodland	115	33	0	0	12	0	0	89	84
Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland	38	82	0	0	0	0	0	92	80
Southern Rocky Mountain Ponderosa Pine Woodland	22	469	2	0	11	0	0	0	94
Colorado Plateau Pinyon-Juniper Woodland	0	4,447	0	0	0	0	0	0	0
Southern Rocky Mountain Pinyon-Juniper Woodland	0	0	0	0	0	0	0	0	0
Rocky Mountain Lower Montane Riparian Woodland and Shrubland	0	0	0	0	0	0	0	0	0
Rocky Mountain Subalpine-Montane Riparian Woodland	4	0	0	0	0	0	0	0	0
Southern Rocky Mountain Montane-Subalpine Grassland	19	0	380	0	44	7	0	94	1,024
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	4	5,258	0	0	0	0	0	13	0
Rocky Mountain Lower Montane-Foothill Shrubland	0	194	0	0	0	0	0	0	0
Rocky Mountain Subalpine-Montane Mesic Meadow	344	17	179	159	314	0	8	172	301
Rocky Mountain Alpine-Montane Wet Meadow	4	0	26	3	2	19	103	77	47
Rocky Mountain Subalpine-Montane Riparian Shrubland	333	0	2,140	123	695	516	1,772	56	348
North American Arid West Emergent Marsh	0	2	0	0	0	0	0	0	0
Inter-Mountain Basins Mat Saltbush Shrubland	0	0	0	0	0	0	0	0	0
Inter-Mountain Basins Mixed Salt Desert Scrub	0	0	0	0	0	0	0	0	0
Inter-Mountain Basins Big Sagebrush Shrubland	0	58	0	0	0	0	0	0	0
Inter-Mountain Basins Montane Sagebrush Steppe	4	719	28	0	40	0	0	19	53
Wyoming Basins Dwarf Sagebrush Shrubland and Steppe	0	0	0	0	0	0	0	0	0
Inter-Mountain Basins Semi-Desert Grassland	0	0	0	0	0	0	0	0	0
Inter-Mountain Basins Semi-Desert Shrub Steppe	0	0	0	0	0	0	0	0	0
Rocky Mountain Alpine Fell-Field	205	0	415	94	202	367	809	28	0
Rocky Mountain Alpine Turf	180	0	1,874	168	848	211	4,121	0	0
Rocky Mountain Cliff, Canyon and Massive Bedrock	10	0	362	7	208	146	14	159	148
Colorado Plateau Mixed Bedrock Canyon and Tableland	0	0	0	0	0	0	0	0	0
Inter-Mountain Basins Active and Stabilized Dune	0	0	0	0	0	0	0	0	0
Inter-Mountain Basins Shale Badland	0	0	0	0	0	0	0	0	0
Rocky Mountain Alpine Bedrock and Scree	221	0	773	759	957	650	1,968	116	0
Cultivated Cropland	0	171	0	0	0	0	0	0	0
Introduced Upland Vegetation - Perennial Grassland and Forbland	0	8	0	0	0	0	0	0	0
Recently Logged Areas	1	0	8	0	11	2	4	49	0
Recently Burned	0	0	0	0	0	0	0	0	0
Disturbed/Successional - Recently Chained Pinyon-Juniper	0	0	0	0	0	0	0	0	0
Open Water (Fresh)	0	0	3	0	0	0	13	8	1
Quarries, Mines, Gravel Pits and Oil Wells	2	0	0	0	2	0	0	0	0
Developed, Low Intensity	0	0	0	0	0	0	0	0	0
Developed, High Intensity	0	0	0	0	0	0	0	0	0

Crystal Peak	Curecanti	Currant Creek	Deer Creek	Double Top	East Elk	Failes Creek/Soldier Creek	Gothic	Granite Basin	Hope Lake	Italian Mountain	Johnson Basin	Last Dollar/Sheep Creek	Little Cimarron	Matterhorn
3	131	11	21	68	46	75	1	27	0	0	323	98	19	0
1,992	3,301	6,093	2,796	3,755	1,148	1,017	578	2,350	96	82	2,555	1,204	445	235
0	13	0	42	34	27	24	0	4,333	0	539	0	4	45	0
2,550	1,885	449	1,448	6,379	1,302	3,181	929	5,802	931	1,894	3	1,815	1,770	325
2,082	2,616	12	723	4,785	972	3,431	1,222	6,237	1,457	1,919	47	606	1,346	274
0	0	0	0	0	0	0	0	93	0	0	0	0	0	0
12	869	5	14	26	965	83	0	901	0	0	248	7	59	0
3	525	0	5	9	454	95	0	413	0	0	514	1	1	0
0	61	0	0	0	107	3	0	130	0	0	907	1	0	0
0	4	0	0	0	21	0	0	3	0	0	1,269	0	0	0
0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
110	492	21	1,647	772	132	218	123	636	1	82	0	380	16	13
0	398	3,902	0	0	3	3	0	4	0	0	5,611	2	0	0
0	0	1	0	0	0	0	0	0	0	0	112	0	0	0
48	126	68	1,604	1,732	84	221	401	1,256	33	231	70	153	14	31
93	49	32	376	1,210	24	266	514	504	35	49	0	60	14	118
626	131	37	286	2,193	30	175	739	725	702	1,278	0	141	50	180
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
0	1,416	111	241	149	453	28	11	789	0	0	140	16	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
143	0	0	2	120	1	6	63	64	345	150	0	38	40	46
2,510	0	0	111	1,525	0	25	155	362	622	1,275	0	250	64	1,404
226	339	3	42	139	230	68	258	273	165	36	1	464	167	72
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1,106	0	0	44	665	0	12	742	510	3,643	1,354	0	1,005	159	825
0	0	1	1	0	0	0	0	0	0	0	107	3	0	0
0	0	0	1	0	0	5	0	0	0	0	0	0	0	0
7	15	0	30	169	9	10	36	91	38	19	0	26	1	9
0	0	0	0	0	0	0	0	7	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	2	0	2	0	2	0	2	4	59	0	0	6	10	0
0	0	0	0	0	0	0	0	0	0	6	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	0	0	0	2	0	0	0	0	0	0	1	0	0

Mendicant	Mirror Lake	Naturita Canyon	Pilot Knob	Salt Creek	Steuben	Sunnyside	Texas Creek	Battlements	Hightower	Kelso Mesa	Turret Ridge	Union	Whitehouse Mountain	Horsefly Canyon	Baldy	Wilson
684	0	0	207	283	38	2	0	140	31	462	271	0	119	3	38	322
6,179	22	6	11,353	4,891	1,251	37	18	8,983	2,440	5,682	237	3	485	130	756	458
2	124	0	0	0	28	0	1,700	0	0	0	0	476	2	0	0	0
3,732	1,289	0	15	1,871	250	0	702	3,028	8	1	2,465	166	2,717	0	170	503
3,596	1,138	0	68	928	174	0	174	1,258	18	24	1,920	808	4,387	0	264	773
0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104	0	157	145	20	594	85	0	38	0	242	19	1	98	250	12	0
140	0	196	399	23	389	88	0	8	0	1,212	18	1	200	703	7	0
4	0	1,930	10	0	90	8	0	2	0	1,846	0	0	26	669	27	0
4	0	1,792	36	0	14	6,236	0	8	0	7,343	0	0	0	1,315	77	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	3	8	0	0	0	0	0	0	25	0	0	0	91	0	0
0	0	0	11	0	0	3	0	0	0	0	0	0	0	0	0	0
477	3	0	6	138	40	8	3	1,291	26	34	30	2	63	0	225	4
731	0	367	2,769	213	24	672	0	4,747	381	14,342	0	0	15	2,721	423	0
0	0	0	1	0	0	25	0	12	0	1,400	0	0	0	18	0	0
473	129	0	4	356	20	3	4	1,816	28	14	29	44	48	0	80	4
561	1	0	2	98	18	1	0	475	2	0	0	5	95	0	2	8
628	777	0	151	158	10	0	32	231	4	0	26	16	160	0	2	33
0	0	0	0	0	0	2	0	0	0	3	0	0	0	0	0	0
0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	566	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	2	66	0	0	0	66	0	0	0	0	0	0
776	0	30	1,998	12	477	186	0	1,547	641	2,152	0	0	3	7	41	0
0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	340	0	0	0	0	0	0	226	0	0	2	0	142	0	0	6
10	1,442	0	0	0	0	0	0	0	0	0	3	12	628	0	0	14
618	19	0	17	0	9	1,458	0	519	0	0	107	21	218	0	17	4
0	0	0	0	0	0	671	0	0	0	1	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	220	0	0	0	0	0	0	0	0	0	0
244	681	0	0	0	0	0	0	0	0	0	224	2	4,685	0	0	491
11	0	115	16	0	0	48	0	28	1	252	0	0	0	251	18	4
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
40	4	0	0	1	10	0	0	58	0	0	98	0	40	0	0	2
0	0	0	0	0	0	1	0	0	0	292	0	0	0	0	0	0
0	0	0	0	0	0	209	0	0	0	62	0	0	0	67	0	0
49	26	0	3	0	0	0	0	2	0	0	10	1	28	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0

Windy Point	Matchless Mountain	North Henson	Munsey/Erickson	Horse Ranch Park	Willow Creek	Mineral Mountain	Crystal Creek	Cottonwoods	Dominguez	Long Canyon	Schofield Pass	Beckwiths	Huntsman
28	52	0	62	34	11	43	0	832	0	170	1	367	61
1,990	1,266	2	1,756	2,795	135	628	0	5,067	291	2,529	169	6,162	6,327
0	9,826	0	0	0	6	1	262	0	0	0	0	3	0
1	4,198	29	67	475	138	405	48	846	0	22	106	1,660	614
6	3,966	554	33	119	0	884	128	1,211	0	63	6	2,891	89
0	137	0	0	0	0	70	0	0	0	0	0	0	0
73	1,012	0	383	12	1	31	31	59	45	424	0	767	35
67	256	0	258	7	0	83	39	149	139	956	0	747	26
1,285	869	0	6	0	0	0	14	3	305	2,013	0	40	0
2,346	0	0	45	0	0	0	0	18	5,206	2,882	0	73	0
0	20	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	10	0	0	0	0	0	5	16	0	0	0
0	14	0	0	0	0	0	0	12	0	0	0	0	4
14	341	0	4	5	0	75	0	60	20	1	38	35	117
6,389	30	0	755	70	0	0	0	2,193	4,547	6,685	0	1,875	1,862
82	0	0	0	0	0	0	0	0	65	223	0	0	0
280	907	0	1	16	0	26	0	388	0	16	110	321	686
0	160	0	16	60	3	16	0	18	0	0	191	115	498
0	988	1	1	110	0	65	1	138	0	0	158	446	60
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	25	0	0	0	0	0	54	4	0	0	0
85	1,052	0	66	18	0	0	0	210	1,704	955	10	762	126
0	0	0	0	0	0	0	0	0	2	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	5	0	0	0	0	0	0	8	26	0
0	854	0	0	1	0	2	0	0	0	0	4	5	0
0	169	0	24	119	0	13	9	10	54	0	3	843	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	709	8	0	38	0	10	0	0	0	0	63	1,236	0
74	7	0	2	1	0	0	0	3	34	172	0	2	14
0	1	0	0	0	0	0	0	0	0	0	0	0	0
0	164	1	0	0	0	5	0	0	0	0	0	7	41
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	42	1	0	0	0
0	0	0	0	0	0	0	0	2	0	0	0	28	0
0	3	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	9	0

Flattops/Elk Park	Flat Irons	Cochetopa Hills	Electric Mountain	Castle	Sunset	American Flag Mountain	Sawtooth	Poverty Gulch	Beaver	Soap Creek	Kannah Creek	Clear Fork	Whetstone	Mount Lamborn
1,354	193	618	886	445	570	0	498	0	53	97	542	189	68	435
15,949	2,865	1,801	5,651	2,866	3,728	36	7,604	379	888	1,650	6,634	13,455	2,620	6,666
0	0	20,253	9	6	0	2,637	1,165	3	85	1	4	0	47	3
32,726	8	6,042	813	2,919	264	3,615	4,581	186	273	302	2,059	3,110	3,717	1,159
10,902	14	6,567	1,345	1,901	165	3,496	4,333	959	409	510	538	1,404	3,825	2,056
0	0	307	0	0	0	3	57	0	0	0	0	0	0	0
57	890	3,711	137	78	65	0	397	15	618	992	315	116	112	536
18	2,209	4,074	209	14	33	0	258	6	659	401	79	171	85	524
1	222	1,237	0	0	0	0	466	0	43	144	10	0	0	81
2	55	0	0	0	0	0	0	0	4	145	10,364	6	0	1,155
0	0	94	0	0	0	0	0	0	0	2	0	0	0	0
0	3	1	0	0	0	0	0	0	0	14	51	2	0	0
0	32	55	0	0	0	1	1	2	0	0	2	0	0	2
1,005	0	876	20	190	0	38	815	67	23	185	899	365	361	281
1,331	4,651	64	409	7	846	0	0	5	4	527	6,691	2,636	3	4,639
2	1	0	0	0	0	0	0	0	0	11	13	0	0	129
5,874	0	86	32	530	2	331	268	399	10	22	1,090	793	574	251
2,254	0	262	57	135	0	72	528	529	6	13	83	415	180	259
1,403	0	319	63	236	18	818	701	1,278	13	88	114	991	273	400
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	33	0	0	0
0	0	0	0	0	0	0	0	0	0	0	127	0	0	51
0	0	0	0	0	0	0	0	0	1	38	21	0	0	50
653	341	1,389	60	28	75	3	689	112	556	2,591	2,739	420	134	2,151
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
613	0	0	0	0	0	11	113	103	0	0	0	7	74	11
0	0	155	0	2	0	325	59	137	0	0	0	10	271	1
520	6	242	10	20	15	32	64	146	30	311	1,910	79	1,257	1,182
0	0	0	0	0	0	0	0	0	0	0	107	0	0	24
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	268	0	0	0	330	58	1,012	0	0	0	32	1,786	124
88	2	26	30	3	3	0	15	0	0	13	9	14	0	112
4	0	0	0	0	0	0	0	0	0	0	0	0	0	29
866	0	12	0	0	0	26	169	54	0	0	7	119	25	8
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	1	0	0	65
48	0	7	0	6	0	10	0	0	0	4	24	0	16	79
0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	20	0	0	0
0	0	0	0	0	0	0	0	0	0	1	0	0	0	32

Turner Creek	UnawEEP	Flattop Mountain	McClure Pass	Tomahawk	Sanford Basin
181	954	625	132	619	0
6,121	1,001	1,631	138	7,198	271
0	0	0	0	16	1,988
2,792	21	642	12	519	3,597
1,662	244	408	56	346	2,350
0	0	0	0	0	15
37	320	1	2	373	0
15	1,290	3	0	208	0
0	532	21	0	8	0
0	626	0	0	17	0
0	0	0	0	0	0
0	35	0	0	0	0
0	0	0	0	1	0
286	4	0	0	2	25
121	5,170	10	0	2,689	0
0	329	0	0	1	0
776	799	280	0	5	234
219	0	0	0	0	17
100	0	0	0	50	1,220
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	48	0	0	0	0
165	628	1,566	0	741	62
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	699
0	0	0	0	0	1,195
326	119	220	0	12	87
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
2	0	0	0	0	1,104
2	15	4	0	17	0
1	0	1	0	0	0
33	0	2	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	16	5
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0

**Table 3, Tab 1: GMUG National Forest Ecosystem Representation**

<b>Ecological Group ("Ecosystem")</b>	<b>GMUG Wilderness (Acres)</b>	<b>GMUG Non- Wilderness (Acres)</b>	<b>All GMUG (Acres)</b>	<b>% GMUG Wilderness</b>	<b>% Federal Wilderness</b>
Inter-Mountain Basins Active and Stabilized Dune	12	1	13	91.2	2.3
Rocky Mountain Alpine Bedrock and Scree	71,844	46,653	118,496	60.6	54.2
Rocky Mountain Alpine Fell-Field	12,331	8,699	21,030	58.6	61.8
Rocky Mountain Alpine Turf	45,780	34,085	79,865	57.3	58.5
Rocky Mountain Cliff, Canyon and Massive Bedrock	19,710	23,199	42,909	45.9	19.5
Rocky Mountain Alpine-Montane Wet Meadow	17,010	22,803	39,814	42.7	19.8
Developed, High Intensity	58	105	162	35.5	0.1
Rocky Mountain Subalpine-Montane Riparian Shrubland	31,494	57,398	88,892	35.4	32.4
Quarries, Mines, Gravel Pits and Oil Wells	23	50	73	31.2	0.5
Rocky Mountain Subalpine Mesic Spruce-Fir Forest and Woodland	98,213	228,148	326,361	30.1	31.3
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	117,838	353,529	471,367	25.0	32.4
Rocky Mountain Subalpine-Montane Limber-Bristlecone Pine Woodland	977	4,920	5,897	16.6	29.4
Southern Rocky Mountain Montane-Subalpine Grassland	8,560	49,212	57,772	14.8	7.8
Open Water (Fresh)	1,069	6,235	7,303	14.6	4.1
Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodland	7,018	47,288	54,306	12.9	11.7
Rocky Mountain Aspen Forest and Woodland	67,689	456,591	524,280	12.9	9.5
Rocky Mountain Subalpine-Montane Mesic Meadow	10,210	70,785	80,995	12.6	18.1
Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland	6,188	44,906	51,094	12.1	11.5
Rocky Mountain Lodgepole Pine Forest	12,747	162,104	174,850	7.3	12.5
Recently Logged Areas	945	15,661	16,605	5.7	6.6
Rocky Mountain Subalpine-Montane Riparian Woodland	31	588	619	5.0	14.9
Inter-Mountain Basins Montane Sagebrush Steppe	8,053	162,660	170,712	4.7	4.9
Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	3,831	88,186	92,017	4.2	6.1
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	10,433	269,075	279,508	3.7	2.2
Rocky Mountain Lower Montane Riparian Woodland and Shrubland	32	1,055	1,088	2.9	2.4
Inter-Mountain Basins Big Sagebrush Shrubland	101	6,397	6,499	1.6	2.1
Introduced Upland Vegetation - Perennial Grassland and Forbland	4	267	270	1.4	0.7
Southern Rocky Mountain Ponderosa Pine Woodland	831	97,097	97,928	0.8	8.3
Colorado Plateau Pinyon-Juniper Woodland	743	103,591	104,334	0.7	3.3

Cultivated Cropland	98	18,805	18,903	0.5	0.0
Rocky Mountain Lower Montane-Foothill Shrubland	7	5,865	5,872	0.1	0.9
Colorado Plateau Pinyon-Juniper Shrubland	0	111	111	0.0	1.6
Southern Rocky Mountain Pinyon-Juniper Woodland	0	435	435	0.0	4.0
North American Arid West Emergent Marsh	0	24	24	0.0	2.8
Inter-Mountain Basins Greasewood Flat	0	7	7	0.0	2.0
Inter-Mountain Basins Mat Saltbush Shrubland	0	50	50	0.0	0.0
Inter-Mountain Basins Mixed Salt Desert Scrub	0	1,153	1,153	0.0	1.4
Wyoming Basins Dwarf Sagebrush Shrubland and Steppe	0	22	22	0.0	0.2
Inter-Mountain Basins Semi-Desert Grassland	0	16	16	0.0	4.4
Inter-Mountain Basins Semi-Desert Shrub Steppe	0	7	7	0.0	2.0
Colorado Plateau Mixed Bedrock Canyon and Tableland	0	955	955	0.0	4.5
Inter-Mountain Basins Shale Badland	0	226	226	0.0	4.0
Undifferentiated Barren Land	0	8	8	0.0	1.9
Introduced Upland Vegetation - Annual Grassland	0	123	123	0.0	0.7
Recently Burned	0	1,988	1,988	0.0	8.0
Disturbed/Successional - Recently Chained Pinyon-Juniper	0	7,295	7,295	0.0	0.6
Developed, Low Intensity	0	124	124	0.0	0.1
<b>Total</b>	<b>553,877</b>	<b>2,385,960</b>	<b>2,939,836</b>	<b>18.8</b>	<b>7.6</b>

**Table 3, Tab 2: GMUG National Forest Ecosystem Representation at the Forest Scale**

<b>Ecological Group ("Ecosystem")</b>	<b>GMUG Wilderness (Acres)</b>	<b>GMUG Non-Wilderness (Acres)</b>	<b>All GMUG (Acres)</b>	<b>% GMUG Wilderness</b>	<b>% Coverage, GMUG Forest Area</b>
<b>Representation @ &lt; 20%</b>					
Rocky Mountain Subalpine-Montane Limber-Bristlecone Pine Woodland	977	4,920	5,897	16.6	0.2
Southern Rocky Mountain Montane-Subalpine Grassland	8,560	49,212	57,772	14.8	2.0
Open Water (Fresh)	1,069	6,235	7,303	14.6	0.2
Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodland	7,018	47,288	54,306	12.9	1.8
Rocky Mountain Aspen Forest and Woodland	67,689	456,591	524,280	12.9	17.8
Rocky Mountain Subalpine-Montane Mesic Meadow	10,210	70,785	80,995	12.6	2.7
Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland	6,188	44,906	51,094	12.1	1.7
Rocky Mountain Lodgepole Pine Forest	12,747	162,104	174,850	7.3	5.9
Rocky Mountain Subalpine-Montane Riparian Woodland	31	588	619	5.0	0.0
Inter-Mountain Basins Montane Sagebrush Steppe	8,053	162,660	170,712	4.7	5.8
Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	3,831	88,186	92,017	4.2	3.1
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	10,433	269,075	279,508	3.7	9.5
Rocky Mountain Lower Montane Riparian Woodland and Shrubland	32	1,055	1,088	2.9	0.0
Inter-Mountain Basins Big Sagebrush Shrubland	101	6,397	6,499	1.6	0.2
Introduced Upland Vegetation - Perennial Grassland and Forbland	4	267	270	1.4	0.0
Southern Rocky Mountain Ponderosa Pine Woodland	831	97,097	97,928	0.8	3.3
Colorado Plateau Pinyon-Juniper Woodland	743	103,591	104,334	0.7	3.5
Rocky Mountain Lower Montane-Foothill Shrubland	7	5,865	5,872	0.1	0.2
Colorado Plateau Pinyon-Juniper Shrubland	0	111	111	0.0	0.0
Southern Rocky Mountain Pinyon-Juniper Woodland	0	435	435	0.0	0.0
North American Arid West Emergent Marsh	0	24	24	0.0	0.0
Inter-Mountain Basins Greasewood Flat	0	7	7	0.0	0.0
Inter-Mountain Basins Mat Saltbush Shrubland	0	50	50	0.0	0.0
Inter-Mountain Basins Mixed Salt Desert Scrub	0	1,153	1,153	0.0	0.0
Wyoming Basins Dwarf Sagebrush Shrubland and Steppe	0	22	22	0.0	0.0
Inter-Mountain Basins Semi-Desert Grassland	0	16	16	0.0	0.0
Inter-Mountain Basins Semi-Desert Shrub Steppe	0	7	7	0.0	0.0
Colorado Plateau Mixed Bedrock Canyon and Tableland	0	955	955	0.0	0.0

Inter-Mountain Basins Shale Badland	0	226	226	0.0	0.0
Introduced Upland Vegetation - Annual Grassland	0	123	123	0.0	0.0
<b>Total</b>	<b>138,523</b>	<b>1,579,951</b>	<b>1,718,474</b>	<b>8.1</b>	<b>58.2</b>

**Representation @ < 10%**

Rocky Mountain Lodgepole Pine Forest	12,747	162,104	174,850	7.3	5.9
Rocky Mountain Subalpine-Montane Riparian Woodland	31	588	619	5.0	0.0
Inter-Mountain Basins Montane Sagebrush Steppe	8,053	162,660	170,712	4.7	5.8
Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	3,831	88,186	92,017	4.2	3.1
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	10,433	269,075	279,508	3.7	9.5
Rocky Mountain Lower Montane Riparian Woodland and Shrubland	32	1,055	1,088	2.9	0.0
Inter-Mountain Basins Big Sagebrush Shrubland	101	6,397	6,499	1.6	0.2
Introduced Upland Vegetation - Perennial Grassland and Forbland	4	267	270	1.4	0.0
Southern Rocky Mountain Ponderosa Pine Woodland	831	97,097	97,928	0.8	3.3
Colorado Plateau Pinyon-Juniper Woodland	743	103,591	104,334	0.7	3.5
Rocky Mountain Lower Montane-Foothill Shrubland	7	5,865	5,872	0.1	0.2
Colorado Plateau Pinyon-Juniper Shrubland	0	111	111	0.0	0.0
Southern Rocky Mountain Pinyon-Juniper Woodland	0	435	435	0.0	0.0
North American Arid West Emergent Marsh	0	24	24	0.0	0.0
Inter-Mountain Basins Greasewood Flat	0	7	7	0.0	0.0
Inter-Mountain Basins Mat Saltbush Shrubland	0	50	50	0.0	0.0
Inter-Mountain Basins Mixed Salt Desert Scrub	0	1,153	1,153	0.0	0.0
Wyoming Basins Dwarf Sagebrush Shrubland and Steppe	0	22	22	0.0	0.0
Inter-Mountain Basins Semi-Desert Grassland	0	16	16	0.0	0.0
Inter-Mountain Basins Semi-Desert Shrub Steppe	0	7	7	0.0	0.0
Colorado Plateau Mixed Bedrock Canyon and Tableland	0	955	955	0.0	0.0
Inter-Mountain Basins Shale Badland	0	226	226	0.0	0.0
Introduced Upland Vegetation - Annual Grassland	0	123	123	0.0	0.0
<b>Total</b>	<b>36,811</b>	<b>900,015</b>	<b>936,826</b>	<b>3.9</b>	<b>31.7</b>

**Representation @ < 5%**

Inter-Mountain Basins Montane Sagebrush Steppe	8,053	162,660	170,712	4.7	5.8
Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	3,831	88,186	92,017	4.2	3.1
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	10,433	269,075	279,508	3.7	9.5

Rocky Mountain Lower Montane Riparian Woodland and Shrubland	32	1,055	1,088	2.9	0.0
Inter-Mountain Basins Big Sagebrush Shrubland	101	6,397	6,499	1.6	0.2
Introduced Upland Vegetation - Perennial Grassland and Forbland	4	267	270	1.4	0.0
Southern Rocky Mountain Ponderosa Pine Woodland	831	97,097	97,928	0.8	3.3
Colorado Plateau Pinyon-Juniper Woodland	743	103,591	104,334	0.7	3.5
Rocky Mountain Lower Montane-Foothill Shrubland	7	5,865	5,872	0.1	0.2
Colorado Plateau Pinyon-Juniper Shrubland	0	111	111	0.0	0.0
Southern Rocky Mountain Pinyon-Juniper Woodland	0	435	435	0.0	0.0
North American Arid West Emergent Marsh	0	24	24	0.0	0.0
Inter-Mountain Basins Greasewood Flat	0	7	7	0.0	0.0
Inter-Mountain Basins Mat Saltbush Shrubland	0	50	50	0.0	0.0
Inter-Mountain Basins Mixed Salt Desert Scrub	0	1,153	1,153	0.0	0.0
Wyoming Basins Dwarf Sagebrush Shrubland and Steppe	0	22	22	0.0	0.0
Inter-Mountain Basins Semi-Desert Grassland	0	16	16	0.0	0.0
Inter-Mountain Basins Semi-Desert Shrub Steppe	0	7	7	0.0	0.0
Colorado Plateau Mixed Bedrock Canyon and Tableland	0	955	955	0.0	0.0
Inter-Mountain Basins Shale Badland	0	226	226	0.0	0.0
Introduced Upland Vegetation - Annual Grassland	0	123	123	0.0	0.0
<b>Total</b>	<b>24,034</b>	<b>737,323</b>	<b>761,357</b>	<b>3.2</b>	<b>25.8</b>

**Table 3, Tab 3: GMUG National Forest Ecosystem Representation at the Federal Scale**

<b>Ecological Group ("Ecosystem")</b>	<b>Rio Grande NF Wilderness (Acres)</b>	<b>Rio Grande NF Non- Wilderness (Acres)</b>	<b>All Rio Grande NF (Acres)</b>	<b>% Federal Wilderness</b>	<b>% Coverage, Rio Grande Forest Area</b>
<b>Representation @ &lt; 20%</b>					
Rocky Mountain Subalpine-Montane Riparian Woodland	2	516	518	17.9	0.0
Rocky Mountain Lodgepole Pine Forest	1,801	43,089	44,890	13.4	2.5
Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland	2,069	56,698	58,767	13.4	3.3
Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodland	3,615	63,607	67,222	12.8	3.7
Southern Rocky Mountain Montane-Subalpine Grassland	6,478	184,796	191,274	12.2	10.6
Rocky Mountain Aspen Forest and Woodland	28,744	180,349	209,094	12.1	11.6
Southern Rocky Mountain Ponderosa Pine Woodland	634	63,099	63,733	9.2	3.5
Recently Logged Areas	2,809	21,751	24,560	6.8	1.4
Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	3,459	13,758	17,217	6.6	1.0
Inter-Mountain Basins Montane Sagebrush Steppe	39	3,590	3,629	6.5	0.2
Inter-Mountain Basins Semi-Desert Grassland	0	1,265	1,265	6.3	0.1
Open Water (Fresh)	670	2,557	3,227	5.2	0.2
Southern Rocky Mountain Pinyon-Juniper Woodland	244	46,843	47,087	5.0	2.6
Rocky Mountain Lower Montane Riparian Woodland and Shrubland	0	412	412	4.4	0.0
Colorado Plateau Pinyon-Juniper Woodland	0	180	180	4.0	0.0
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	22	1,812	1,833	3.7	0.1
Inter-Mountain Basins Active and Stabilized Dune	0	1	1	2.8	0.0
Inter-Mountain Basins Big Sagebrush Shrubland	28	107	135	2.6	0.0
Inter-Mountain Basins Semi-Desert Shrub Steppe	0	6,470	6,470	2.4	0.4
Rocky Mountain Lower Montane-Foothill Shrubland	3	567	571	1.4	0.0
Introduced Upland Vegetation - Perennial Grassland and Forbland	2	126	128	0.8	0.0
<b>Total</b>	<b>50,619</b>	<b>691,594</b>	<b>742,213</b>	<b>6.0</b>	<b>41.1</b>
<b>Representation @ &lt; 10%</b>					
Southern Rocky Mountain Ponderosa Pine Woodland	634	63,099	63,733	9.2	3.5
Recently Logged Areas	2,809	21,751	24,560	6.8	1.4
Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	3,459	13,758	17,217	6.6	1.0
Inter-Mountain Basins Montane Sagebrush Steppe	39	3,590	3,629	6.5	0.2

Inter-Mountain Basins Semi-Desert Grassland	0	1,265	1,265	6.3	0.1
Open Water (Fresh)	670	2,557	3,227	5.2	0.2
Southern Rocky Mountain Pinyon-Juniper Woodland	244	46,843	47,087	5.0	2.6
Rocky Mountain Lower Montane Riparian Woodland and Shrubland	0	412	412	4.4	0.0
Colorado Plateau Pinyon-Juniper Woodland	0	180	180	4.0	0.0
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	22	1,812	1,833	3.7	0.1
Inter-Mountain Basins Active and Stabilized Dune	0	1	1	2.8	0.0
Inter-Mountain Basins Big Sagebrush Shrubland	28	107	135	2.6	0.0
Inter-Mountain Basins Semi-Desert Shrub Steppe	0	6,470	6,470	2.4	0.4
Rocky Mountain Lower Montane-Foothill Shrubland	3	567	571	1.4	0.0
Introduced Upland Vegetation - Perennial Grassland and Forbland	2	126	128	0.8	0.0
<b>Total</b>	<b>7,910</b>	<b>162,538</b>	<b>170,448</b>	<b>4.5</b>	<b>9.4</b>

**Representation @ < 5%**

Rocky Mountain Lower Montane Riparian Woodland and Shrubland	0	412	412	4.4	0.0
Colorado Plateau Pinyon-Juniper Woodland	0	180	180	4.0	0.0
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	22	1,812	1,833	3.7	0.1
Inter-Mountain Basins Active and Stabilized Dune	0	1	1	2.8	0.0
Inter-Mountain Basins Big Sagebrush Shrubland	28	107	135	2.6	0.0
Inter-Mountain Basins Semi-Desert Shrub Steppe	0	6,470	6,470	2.4	0.4
Rocky Mountain Lower Montane-Foothill Shrubland	3	567	571	1.4	0.0
Introduced Upland Vegetation - Perennial Grassland and Forbland	2	126	128	0.8	0.0
<b>Total</b>	<b>55</b>	<b>9,675</b>	<b>9,730</b>	<b>3.0</b>	<b>0.5</b>

Table 4: Colorado Roadless Area Analysis of Ecosystem Composition										
<i>Values are the estimated acres of each ecosystem occurring within each Wilderness Inventory Unit. Orange cells represent a combination of units whose protection would achieve adequate representation on the forest level.</i>										
Ecosystem	Forest Ecosystem Representation	Acres needed for adequate protection in wilderness (>20%)	Number of Roadless Areas to Reach Adequate Protection	Colorado Roadless Areas						
				Deer Creek	Battlements	Cochetopa	Flattops/Elk Park	Kannah Creek	Cochetopa Hills	Sawtooth
Colorado Plateau Mixed Bedrock Canyon and Tableland	< 5	191	1	0	0	0	0	107	0	0
Colorado Plateau Pinyon-Juniper Woodland	< 5	20,867	3	0	8	0	2	10,364	0	0
Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	< 5	18,403	NA	21	140	27	1,354	542	618	498
Inter-Mountain Basins Big Sagebrush Shrubland	< 5	1,300	NA	0	0	0	0	21	0	0
Inter-Mountain Basins Mat Saltbush Shrubland	< 5	10	1	0	0	0	0	33	0	0
Inter-Mountain Basins Mixed Salt Desert Scrub	< 5	231	1	0	0	0	0	127	0	0
Inter-Mountain Basins Montane Sagebrush Steppe	< 5	34,142	NA	241	1,547	53	653	2,739	1,389	689
Inter-Mountain Basins Semi-Desert Grassland	< 5	3	1	0	0	0	0	0	0	0
Inter-Mountain Basins Semi-Desert Shrub Steppe	< 5	1	1	0	0	0	0	0	0	0
Inter-Mountain Basins Shale Badland	< 5	45	1	0	0	0	0	0	0	0
Introduced Upland Vegetation - Perennial Grassland and Forbland	< 5	54	NA	1	1	0	4	0	0	0
North American Arid West Emergent Marsh	< 5	5	2	0	0	0	0	0	0	0
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	< 5	55,902	9	0	4,747	0	1,331	6,691	64	0
Rocky Mountain Lower Montane Riparian Woodland and Shrubland	< 5	218	5	0	0	0	0	51	1	0
Rocky Mountain Lower Montane-Foothill Shrubland	< 5	1,174	1	0	12	0	2	13	0	0
Southern Rocky Mountain Pinyon-Juniper Woodland	< 5	87	1	0	0	0	0	0	94	0
Southern Rocky Mountain Ponderosa Pine Woodland	< 5	19,586	NA	0	2	94	1	10	1,237	466
Wyoming Basins Dwarf Sagebrush Shrubland and Steppe	< 5	4	2	0	0	0	0	0	0	0
Recently Logged Areas	5 - 10	3,321	NA	30	58	0	866	7	12	169
Rocky Mountain Lodgepole Pine Forest	5 - 10	34,970	4	42	0	101	0	4	20,253	1,165
Rocky Mountain Subalpine-Montane Riparian Woodland	5 - 10	124	5	0	0	0	0	2	55	1
Open Water (Fresh)	11 - 20	1,461	NA	2	2	1	48	24	7	0
Rocky Mountain Aspen Forest and Woodland	11 - 20	104,856	13	2,796	8,983	1,760	15,949	6,634	1,801	7,604
Rocky Mountain Subalpine-Montane Limber-Bristlecone Pine Woodland	11 - 20	1,179	NA	0	0	254	0	0	307	57
Rocky Mountain Subalpine-Montane Mesic Meadow	11 - 20	16,199	10	1,604	1,816	301	5,874	1,090	86	268
Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodland	11 - 20	10,861	10	14	38	84	57	315	3,711	397
Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland	11 - 20	10,219	6	5	8	80	18	79	4,074	258
Southern Rocky Mountain Montane-Subalpine Grassland	11 - 20	11,554	16	1,647	1,291	1,024	1,005	899	876	815
Inter-Mountain Basins Active and Stabilized Dune	> 20	NA	NA	0	0	0	0	0	0	0
Quarries, Mines, Gravel Pits and Oil Wells	> 20	NA	NA	0	0	0	0	0	0	0
Rocky Mountain Alpine Bedrock and Scree	> 20	NA	NA	44	0	0	5	0	268	58
Rocky Mountain Alpine Fell-Field	> 20	NA	NA	2	226	0	613	0	0	113
Rocky Mountain Alpine Turf	> 20	NA	NA	111	0	0	0	0	155	59
Rocky Mountain Alpine-Montane Wet Meadow	> 20	NA	NA	376	475	47	2,254	83	262	528
Rocky Mountain Cliff, Canyon and Massive Bedrock	> 20	NA	NA	42	519	148	520	1,910	242	64
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	> 20	NA	NA	1,448	3,028	1,679	32,726	2,059	6,042	4,581
Rocky Mountain Subalpine Mesic Spruce-Fir Forest and Woodland	> 20	NA	NA	723	1,258	622	10,902	538	6,567	4,333
Rocky Mountain Subalpine-Montane Riparian Shrubland	> 20	NA	NA	286	231	348	1,403	114	319	701

Double Top	Granite Basin	Curecanti	Mendicant	Last Dollar/Sheep Creek	Cannibal Plateau	Clear Fork	Whetstone	Matchless Mountain	Turner Creek	Mount Lamborn	Baldy	Failes Creek/Sold	Castle	Soap Creek
0	0	0	0	0	0	0	0	0	0	24	0	0	0	0
0	3	4	4	0	0	6	0	0	0	1,155	77	0	0	145
68	27	131	684	98	18	189	68	52	181	435	38	75	445	97
0	0	0	0	0	0	0	0	0	0	50	0	0	0	38
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	51	0	0	0	0
149	789	1,416	776	16	28	420	134	1,052	165	2,151	41	28	28	2,591
0	0	0	0	0	0	0	0	0	0	5	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	6	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	1	29	0	5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	398	731	2	0	2,636	3	30	121	4,639	423	3	7	527
0	0	0	0	0	0	2	0	0	0	0	0	0	0	14
0	0	0	0	0	0	0	0	0	0	129	0	0	0	11
0	5	0	0	0	0	0	0	20	0	0	0	0	0	2
0	130	61	4	1	2	0	0	869	0	81	27	3	0	144
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169	91	15	40	26	8	119	25	164	33	8	0	10	0	0
34	4,333	13	2	4	0	0	47	9,826	0	3	0	24	6	1
0	2	0	0	0	0	0	0	14	0	2	0	0	0	0
0	4	2	49	6	3	0	16	0	0	79	0	0	6	4
3,755	2,350	3,301	6,179	1,204	1,401	13,455	2,620	1,266	6,121	6,666	756	1,017	2,866	1,650
0	93	0	0	0	0	0	0	137	0	0	0	0	0	0
1,732	1,256	126	473	153	179	793	574	907	776	251	80	221	530	22
26	901	869	104	7	0	116	112	1,012	37	536	12	83	78	992
9	413	525	140	1	0	171	85	256	15	524	7	95	14	401
772	636	492	477	380	380	365	361	341	286	281	225	218	190	185
0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	0	0	0	0	3	0	0	0	0	0	0
665	510	0	244	1,005	773	32	1,786	709	2	124	0	12	0	0
120	64	0	29	38	415	7	74	0	0	11	0	6	0	0
1,525	362	0	10	250	1,874	10	271	854	0	1	0	25	2	0
1,210	504	49	561	60	26	415	180	160	219	259	2	266	135	13
139	273	339	618	464	362	79	1,257	169	326	1,182	17	68	20	311
6,379	5,802	1,885	3,732	1,815	4,040	3,110	3,717	4,198	2,792	1,159	170	3,181	2,919	302
4,785	6,237	2,616	3,596	606	2,848	1,404	3,825	3,966	1,662	2,056	264	3,431	1,901	510
2,193	725	131	628	141	2,140	991	273	988	100	400	2	175	236	88

Salt Creek	East Elk	Gothic	Huntsman Rid	Crystal Pea	Cimarron R	Italian Mountair	Mineral Mount	Poverty Gulch	Whitehouse M	Cottonwoods	Canyon Cr	Steuben	American Flag Mo	Schofield F	Beckwiths	Kelso Mesa
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
0	21	0	0	0	0	0	0	0	0	18	0	14	0	0	73	7,343
283	46	1	61	3	417	0	43	0	119	832	1	38	0	1	367	462
0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	66
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	453	11	126	0	19	0	0	112	3	210	40	477	3	10	762	2,152
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
213	3	0	1,862	0	13	0	0	5	15	2,193	0	24	0	0	1,875	14,342
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,400
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	107	0	0	0	0	0	0	0	26	3	11	90	0	0	40	1,846
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1	9	36	41	7	49	19	5	54	40	0	11	10	26	0	7	0
0	27	0	0	0	12	539	1	3	2	0	2,600	28	2,637	0	3	0
0	0	0	4	0	0	0	0	2	0	12	0	0	1	0	0	0
0	2	2	0	4	8	0	0	0	28	2	0	0	10	0	28	0
4,891	1,148	578	6,327	1,992	2,639	82	628	379	485	5,067	52	1,251	36	169	6,162	5,682
0	0	0	0	0	0	0	70	0	0	0	74	0	3	0	0	0
356	84	401	686	48	172	231	26	399	48	388	314	20	331	110	321	14
20	965	0	35	12	89	0	31	15	98	59	12	594	0	0	767	242
23	454	0	26	3	92	0	83	6	200	149	0	389	0	0	747	1,212
138	132	123	117	110	94	82	75	67	63	60	44	40	38	38	35	34
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	6	0	0	0	0	2	0	4	0	0	0
0	0	742	0	1,106	116	1,354	10	1,012	4,685	0	957	0	330	63	1,236	0
0	1	63	0	143	28	150	0	103	142	0	202	0	11	8	26	0
0	0	155	0	2,510	0	1,275	2	137	628	0	848	0	325	4	5	0
98	24	514	498	93	77	49	16	529	95	18	2	18	72	191	115	0
0	230	258	12	226	159	36	13	146	218	10	208	9	32	3	843	0
1,871	1,302	929	614	2,550	4,504	1,894	405	186	2,717	846	2,671	250	3,615	106	1,660	1
928	972	1,222	89	2,082	4,061	1,919	884	959	4,387	1,211	2,052	174	3,496	6	2,891	24
158	30	739	60	626	56	1,278	65	1,278	160	138	695	10	818	158	446	0

Turret Ridge	Hightower	Sanford Basin	Beaver	Currant Creek	Electric Mountain	Dominguez	Agate Creek	Little Cimarro	Windy Point	Matterhorn	Sunnyside	Carson	Pilot Knob	Horse Ran
0	0	0	0	0	0	0	0	0	0	0	671	0	0	0
0	0	0	4	0	0	5,206	0	0	2,346	0	6,236	0	36	0
271	31	0	53	11	886	0	23	19	28	0	2	43	207	34
0	0	0	1	0	0	54	0	0	4	0	66	0	0	0
0	0	0	0	0	0	0	0	0	0	0	15	0	0	0
0	0	0	0	0	0	0	0	0	0	0	566	0	0	0
0	641	62	556	111	60	1,704	4	0	85	0	186	0	1,998	18
0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	220	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
0	381	0	4	3,902	409	4,547	4	0	6,389	0	672	0	2,769	70
0	0	0	0	0	0	5	0	0	0	0	0	0	8	0
0	0	0	0	1	0	65	0	0	82	0	25	0	1	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	43	0	0	305	22	0	1,285	0	8	0	10	0
0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
98	0	0	0	0	0	0	1	1	0	9	0	2	0	0
0	0	1,988	85	0	9	0	4,060	45	0	0	0	0	0	0
0	0	0	0	0	0	0	4	0	0	0	3	0	11	0
10	0	5	0	0	0	0	0	10	0	0	0	0	3	0
237	2,440	271	888	6,093	5,651	291	70	445	1,990	235	37	334	11,353	2,795
0	0	15	0	0	0	0	6	0	0	0	0	0	0	0
29	28	234	10	68	32	0	344	14	280	31	3	0	4	16
19	0	0	618	5	137	45	115	59	73	0	85	0	145	12
18	0	0	659	0	209	139	38	1	67	0	88	0	399	7
30	26	25	23	21	20	20	19	16	14	13	8	7	6	5
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
224	0	1,104	0	0	0	0	221	159	0	825	0	650	0	38
2	0	699	0	0	0	0	205	40	0	46	0	367	0	5
3	0	1,195	0	0	0	0	180	64	0	1,404	0	211	0	1
0	2	17	6	32	57	0	4	14	0	118	1	19	2	60
107	0	87	30	3	10	54	10	167	0	72	1,458	146	17	119
2,465	8	3,597	273	449	813	0	3,416	1,770	1	325	0	1,492	15	475
1,920	18	2,350	409	12	1,345	0	2,749	1,346	6	274	0	2,180	68	119
26	4	1,220	13	37	63	0	333	50	0	180	0	516	151	110

Wilson	Unawweep	Munsey/E	Texas Cree	Mirror Lake	Tomahawk	Union	Hope Lake	Long Canyon	Johnson Basin	Willow Creek	Flat Irons	Horsefly Canyon	Naturita Canyon	Calamity Bas	Crystal Creek
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	626	45	0	0	17	0	0	2,882	1,269	0	55	1,315	1,792	4,447	0
322	954	62	0	0	619	0	0	170	323	11	193	3	0	151	0
0	48	25	0	0	0	0	0	4	2	0	0	0	0	58	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	628	66	0	0	741	0	0	955	140	0	341	7	30	719	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
0	5,170	755	0	0	2,689	0	0	6,685	5,611	0	4,651	2,721	367	5,258	0
0	35	10	0	0	0	0	0	16	3	0	3	91	3	0	0
0	329	0	0	0	1	0	0	223	112	0	1	18	0	194	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	532	6	0	0	8	0	0	2,013	907	0	222	669	1,930	469	14
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	4	0	0	38	0	0	0	0	0	0	0	0
0	0	0	1,700	124	16	476	0	0	0	6	0	0	0	0	262
0	0	0	0	0	1	0	0	0	0	0	32	0	0	0	0
0	0	0	0	26	16	1	59	0	0	0	0	0	0	0	0
458	1,001	1,756	18	22	7,198	3	96	2,529	2,555	135	2,865	130	6	784	0
0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0
4	799	1	4	129	5	44	33	16	70	0	0	0	0	17	0
0	320	383	0	0	373	1	0	424	248	1	890	250	157	33	31
0	1,290	258	0	0	208	1	0	956	514	0	2,209	703	196	82	39
4	4	4	3	3	2	2	1	1	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
491	0	0	0	681	0	2	3,643	0	0	0	0	0	0	0	0
6	0	0	0	340	0	0	345	0	0	0	0	0	0	0	0
14	0	0	0	1,442	0	12	622	0	0	0	0	0	0	0	0
8	0	16	0	1	0	5	35	0	0	3	0	0	0	0	0
4	119	24	0	19	12	21	165	0	1	0	6	0	0	0	9
503	21	67	702	1,289	519	166	931	22	3	138	8	0	0	6	48
773	244	33	174	1,138	346	808	1,457	63	47	0	14	0	0	51	128
33	0	1	32	777	50	16	702	0	0	0	0	0	0	0	1

Sunset	Flattop Mour	McClure Pass	Canyon Ck	Cataract	North Hen
0	0	0	0	0	0
0	0	0	0	0	0
570	625	132	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
75	1,566	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	1	0	0	0	0
0	0	0	0	0	0
846	10	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	21	0	0	0	0
0	0	0	0	0	0
0	2	0	0	4	1
0	0	0	2	0	0
0	0	0	0	0	0
0	0	0	0	13	0
3,728	1,631	138	1	3	2
0	0	0	0	0	0
2	280	0	159	8	0
65	1	2	0	0	0
33	3	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	759	1,968	8
0	0	0	94	809	1
0	0	0	168	4,121	0
0	0	0	3	103	0
15	220	0	7	14	0
264	642	12	263	429	29
165	408	56	17	774	554
18	0	0	123	1,772	1

## **Example of Region 5's Incorporation of Ecosystem Representation Analysis into Chapter 70 Inventory**

**Inyo NF Wilderness Inventory Areas  
Summary of The Wilderness Society's data on  
Under-represented Ecosystems in the National Wilderness Preservation System**

**Background**

The Wilderness Society comments indicated the Wilderness Evaluation process should consider the suitability of Wilderness Inventory Areas with under-represented and rare ecosystems. The Wilderness Society utilized several sets of available information at the national scale to identify under-represented ecosystems in the National Wilderness Preservation System (NWPS).

The National Vegetation Classification System Group 6<sup>1</sup> data was used to identify the set of thirty-six ecological groups within the Inyo NF. For each ecological group on the forest, they provided two calculations: the percentage of an ecological group's total area that is within the NWPS; the percentage of an ecological group's area within the Inyo NF that is within designated wilderness. The ecological groups were divided into four classes of representation, which are termed categories A through D below.

**Category A** is ecological groups on the Inyo NF that have less than five percent of their area protected within the NWPS:

1. *Great Basin Xeric Mixed Sagebrush Shrubland- 3% protected in NWPS*
2. *Inter-Mountain Basins Big Sagebrush Shrubland-3% protected in NWPS*
3. *Inter-Mountain Basins Semi-Desert Shrub Steppe-2% protected in NWPS*
4. *Inter-Mountain Basins Mixed Salt Desert Scrub – 2% protected in NWPS*

**Category B** is ecological groups on the Inyo NF that have between five and ten percent of their area protected within the NWPS:

1. *Great Basin Foothill & Lower Montane Riparian Woodland and Shrubland- 9% protected in NWPS*
2. *Inter-Mountain Basins Montane Sagebrush Steppe – 7% protected in NWPS.*

**Category C** is ecological groups on the Inyo NF that have between ten and twenty percent of their area protected within the NWPS. The Wilderness Society indicated it considers ecosystems with less than twenty percent of its total area in the NWPS as inadequately represented<sup>2</sup>.

1. *Great Basin Pinyon-Juniper Woodlands – 14% of ecosystem protected in NWPS*
2. *Rocky Mountain Aspen Forest and Woodland – 12% of ecosystem protected in NWPS.*

**Category D** is ecological groups on the Inyo NF that have more than twenty percent of their area protected within the NWPS, and are not discussed further.

**Data Management and processing**

1. Eight of thirty-six ecological types were not considered in this summary because their label indicated they are developed land.
2. Area size information was converted from hectares to acres.
3. Ecosystems in each category were ranked by size, largest to smallest.

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<sup>1</sup> The National Vegetation Classification System website indicates the ecological context for Group 6 data: regional mesoclimate, geology, substrates, hydrology and disturbance regimes.

<sup>2</sup> The twenty percent representation threshold is based on Society for Conservation Biology and Convention on Biological Diversity targets (personal communication with Matt Dietz).

**Inyo NF Wilderness Inventory Areas  
Summary of The Wilderness Society's data on  
Under-represented Ecosystems in the National Wilderness Preservation System**

4. Ecosystems in each category with less than 1,000 total acres on all Inyo NF non-wilderness lands were not included in this summary.
5. For each category, the acres for the ecological groups in that category were summed for each wilderness inventory unit.
6. The percentage of each wilderness inventory unit's total area comprised of "under-represented" ecological groups was calculated for each of the Categories A-C.

The table below summarizes the Wilderness Society representation data for each wilderness inventory area listed in the polygon column:

**General location:** 1988 Forest Plan management area labels describe the general location of the inventory unit, and whether the unit is adjacent to designated wilderness.

**Size:** The area in acres indicated is the "parent polygon".

**Category A:** The summary first displays the percentage of the wilderness inventory unit comprised of Category A ecological groups, and the types of type of ecological groups in Category A within the inventory unit. Any ecological groups with more than 1,000 acres in an inventory unit is highlighted in bold font.

**Category B:** The summary first displays the percentage of the wilderness inventory unit comprised of Category B ecological groups, and the types of type of ecological groups in Category B within the inventory unit. Any ecological groups with more than 1,000 acres in an inventory unit is highlighted in bold font.

**Category C:** Next, the summary displays the percentage of the wilderness inventory unit comprised of Category C ecological groups, and the types of ecological groups in Category C within the inventory unit. Any ecological groups with more than 1,000 acres in an inventory unit is highlighted in bold font. The difference between Category B and Category C for most inventory units is largely attributed to the addition of *Great Basin Pinyon-Juniper Woodland* in Category C acreage.

**Note:** The percent of the wilderness inventory unit comprised of Category B ecological groups includes the area of Category A ecological groups (the names of the Category A ecosystems, however, are not listed again under Category B). The percent of the wilderness inventory unit comprised of Category C ecological groups includes the area of both Category A and B ecological groups

**Inyo NF Representation:** The percentage of a unit's area comprised of ecological groups with less than twenty percent total acreage for the ecological group on the Inyo NF in designated wilderness. The twenty percent representation is the only category displayed for Inyo NF because only six of fifty-five wilderness inventory units have more than 1,000 acres of ecological groups with less than twenty percent of their total acreage on the forest in designated wilderness. The ecological groups in this category include:

**Inyo NF Wilderness Inventory Areas  
Summary of The Wilderness Society's data on  
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- *Inter-Mountain Basins Mixed Salt Desert Scrub*
- *Great Basin Xeric Mixed Sagebrush Shrubland*
- *Inter-Mountain Basins Semi-Desert Shrub Steppe*

Wilderness Inventory Units	National Vegetation Classification System summary
<b>944</b>	<p><b>General location:</b> Benton-Casa Diablo Management Area <b>Size:</b> 7,629 acres</p> <p><b>Category A:</b> 40% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <b><i>Inter-Mountain Basins Big Sagebrush Shrubland</i></b></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 61% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <b><i>Inter-Mountain Basins Montane Sagebrush Steppe</i></b></li> </ul> <p><b>Category C:</b> 100% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodlands</i></b></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<b>995</b>	<p><b>General location:</b> Benton-Casa Diablo Management Area <b>Size:</b> 5,806 acres</p> <p><b>Category A:</b> 2% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> 35% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <b><i>Inter-Mountain Basins Montane Sagebrush Steppe</i></b></li> </ul>

**Inyo NF Wilderness Inventory Areas  
Summary of The Wilderness Society's data on  
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	<ul style="list-style-type: none"> <li>• <i>Great Basin Foothill &amp; Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 98% percent of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodlands</i></b></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
1012	<p><b>General location:</b> Glass Mountain and Benton-Casa Diablo Management Areas <b>Size:</b> 40,368 acres</p> <p><b>Category A:</b> 10% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <b><i>Inter-Mountain Basins Big Sagebrush Shrubland</i></b></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> </ul> <p><b>Category B:</b> 32% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <b><i>Inter-Mountain Basins Montane Sagebrush Steppe</i></b></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 75% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodland</i></b></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> Less than one percent of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
1039	<p><b>General location:</b> Glass Mountain Management Area <b>Size:</b> 11,026 acres</p> <p><b>Category A:</b> 3% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> </ul>

**Inyo NF Wilderness Inventory Areas  
Summary of The Wilderness Society's data on  
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	<p><b>Category B:</b> 20% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 97% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1068</b></p>	<p><b>General location:</b> Glass Mountain Management Area <b>Size:</b> 12,311 acres</p> <p><b>Category A:</b> 20% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> </ul> <p><b>Category B:</b> 63% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 93% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> Less than one percent of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1072</b></p>	<p><b>General location:</b> Mono Basin and Glass Mountain Management Areas <b>Size:</b> 7,574 acres</p>

**Inyo NF Wilderness Inventory Areas  
Summary of The Wilderness Society's data on  
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	<p><b>Category A:</b> 57% percent of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> 57% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 69% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1080</b></p>	<p><b>General location:</b> South Sierra Management Area <b>Size:</b> 1,137 acres adjacent to South Sierra Wilderness</p> <p><b>Category A:</b> 39% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category B: none</b></p> <p><b>Category C:</b> 52% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1081</b></p>	<p><b>General location:</b> South Sierra Management Area <b>Size:</b> 5,413 acres adjacent to Golden Trout Wilderness</p> <p><b>Category A:</b> 8% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul>

**Inyo NF Wilderness Inventory Areas  
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	<p><b>Category B: none</b></p> <p><b>Category C:</b> 27% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<b>1092</b>	<p><b>General location:</b> Golden Trout Management Area <b>Size:</b> 4,552 acres adjacent to Golden Trout Wilderness</p> <p><b>Category A:</b> 1% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> 1% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 23% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<b>1098</b>	<p><b>General location:</b> Owens Valley Escarpment Management Area <b>Size:</b> 1,476 acres adjacent to John Muir Wilderness</p> <p><b>Category A:</b> None</p> <p><b>Category B:</b> Less than one percent of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 5% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological</p>

**Inyo NF Wilderness Inventory Areas  
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	<p>groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1099</b></p>	<p><b>General location:</b> Owens Valley Escarpment Management Area <b>Size:</b> 1,092 acres adjacent to John Muir Wilderness</p> <p><b>Category A:</b> None</p> <p><b>Category B:</b> Less than one percent of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 13% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1106</b></p>	<p><b>General location:</b> Owens Valley Escarpment Management Area <b>Size:</b> 1,408 acres adjacent to John Muir Wilderness</p> <p><b>Category A:</b> 2% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> 4% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 17% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul>

**Inyo NF Wilderness Inventory Areas  
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	<p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1108</b></p>	<p><b>General location:</b> Owens Valley Escarpment Management Area <b>Size:</b> 2,100 acres adjacent to John Muir Wilderness</p> <p><b>Category A:</b> Less than one percent of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> Less than one percent of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 5% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1109</b></p>	<p><b>General location:</b> Owens Valley Escarpment Management Area <b>Size:</b> 1,319 acres adjacent to John Muir Wilderness</p> <p><b>Category A:</b> 5% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> 5% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> Ten percent of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul>

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	<p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1110</b></p>	<p><b>General location:</b> Owens Valley Escarpment Management Area <b>Size:</b> 1,650 acres adjacent to John Muir Wilderness</p> <p><b>Category A:</b> 2% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> 2% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 6% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> 7% of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1112</b></p>	<p><b>General location:</b> Owens Valley Escarpment Management Area <b>Size:</b> 4,949 acres adjacent to John Muir Wilderness</p> <p><b>Category A:</b> 33% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <b><i>Inter-Mountain Basins Big Sagebrush Shrubland</i></b></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 35% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 46% of the inventory unit is comprised of ecological groups which</p>

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	<p>have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> 23% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1115</b></p>	<p><b>General location:</b> Owens Valley Escarpment Management Area <b>Size:</b> 3,485 acres adjacent to John Muir Wilderness</p> <p><b>Category A:</b> 82% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <b><i>Inter-Mountain Basins Big Sagebrush Shrubland</i></b></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 84% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 100% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> 5% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1116</b></p>	<p><b>General location:</b> Owens Valley Escarpment Management Area <b>Size:</b> 2,437 acres adjacent to John Muir Wilderness</p> <p><b>Category A:</b> 55% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <b><i>Inter-Mountain Basins Big Sagebrush Shrubland</i></b></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 61% of this inventory unit is comprised of ecological groups which</p>

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	<p>have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 98% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> 2% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1140</b></p>	<p><b>General location:</b> Coyote Management Area <b>Size:</b> 75,299 acres adjacent to the John Muir Wilderness</p> <p><b>Category A:</b> 13% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 29% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 65% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> 2% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1147</b></p>	<p><b>General location:</b> Rock Creek-Pine Creek Management Area <b>Size:</b> 1,351 acres adjacent to John Muir Wilderness</p> <p><b>Category A:</b> 22% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the</p>

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	<p>NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> None</p> <p><b>Category C:</b> 37% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1148</b></p>	<p><b>General location:</b> Rock Creek-Pine Creek Management Area <b>Size:</b> 1,756 acres adjacent to John Muir Wilderness</p> <p><b>Category A:</b> 7% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> 8% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 19% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1154</b></p>	<p><b>General location:</b> Rock Creek-Pine Creek Management Area <b>Size:</b> 5,243 acres adjacent to John Muir Wilderness</p> <p><b>Category A:</b> 8% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 10% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological</p>

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	<p>groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 54% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodland</i></b></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1155</b></p>	<p><b>General location:</b> Rock Creek-Pine Creek Management Area <b>Size:</b> 3,498 acres adjacent to John Muir Wilderness</p> <p><b>Category A:</b> 1% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> 3% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 35% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1156</b></p>	<p><b>General location:</b> Convict-McGee Management Area <b>Size:</b> 5,129 acres adjacent to John Muir Wilderness</p> <p><b>Category A:</b> 22% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> 24% percent of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p>

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	<ul style="list-style-type: none"> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 57% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
1159	<p><b>General location:</b> Mammoth Escarpment Management Area <b>Size:</b> 14,833 acres adjacent to John Muir Wilderness</p> <p><b>Category A:</b> 11% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> 11% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 27% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
1161	<p><b>General location:</b> Reds Meadow-Fish Creek Management Area <b>Size:</b> 1,656 acres adjacent to Ansel Adams Wilderness</p> <p><b>Category A and B:</b> Almost none of this area is comprised of ecosystems which have less than ten percent of their total area protected in the National Wilderness Preservation System:</p> <p><b>Category C:</b> 2% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul>

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	<p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<b>1164</b>	<p><b>General location:</b> Reds Meadow-Fish Creek Management Area <b>Size:</b> 1,017 acres adjacent to Ansel Adams Wilderness</p> <p><b>Categories A, B and C:</b> Almost none of this area is comprised of ecosystems which have less than ten percent of their total area protected in the National Wilderness Preservation System:</p> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<b>1179</b>	<p><b>General location:</b> Walker-Parker Management Area <b>Size:</b> 7,212 acres adjacent to Ansel Adams Wilderness</p> <p><b>Category A:</b> 10% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> 10% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 51% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<b>1195</b>	<p><b>General location:</b> Mono Basin Management Area <b>Size:</b> 2,008 acres adjacent to Ansel Adams Wilderness</p> <p><b>Category A:</b> 21% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> none</p> <p><b>Category C:</b> 68% of the inventory unit is comprised of ecological groups which</p>

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	<p>have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1208</b></p>	<p><b>General location:</b> Lee Vining Management Area <b>Size:</b> 2,516 acres adjacent to Ansel Adams Wilderness</p> <p><b>Category A:</b> 1% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> none</p> <p><b>Category C:</b> 2% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1211</b></p>	<p><b>General location:</b> Lee Vining Management Area <b>Size:</b> 1,949 acres adjacent to Ansel Adams Wilderness</p> <p><b>Category A:</b> 4% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> 4% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 34% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological</p>

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	groups with less than twenty percent of their area on the Inyo NF in designated wilderness.
<b>1232</b>	<p><b>General location:</b> Inyo Mountains Management Area <b>Size:</b> 3,205 acres adjacent to South Sierra Wilderness</p> <p><b>Categories A and B:</b> Almost none of this area is comprised of ecosystems which have less than ten percent of their total area protected in the National Wilderness Preservation System.</p> <p><b>Category C:</b> 9% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<b>1236</b>	<p><b>General location:</b> Inyo Mountains Management Area <b>Size:</b> 73,178 acres; a portion is adjacent to the Inyo Mountains Wilderness</p> <p><b>Category A:</b> 32% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 44% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 80% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> 7% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<b>1242</b>	<p><b>General location:</b> White Mountains Management Area <b>Size:</b> 10,084 acres</p>

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	<p><b>Category A:</b> 8% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> </ul> <p><b>Category B:</b> 14% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 25% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodland</i></b></li> </ul> <p><b>Inyo NF representation:</b> Less than one percent of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
1246	<p><b>General location:</b> White Mountains Management Area <b>Size:</b> 43,230 acres</p> <p><b>Category A:</b> 43% percent of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Xeric Mixed Sagebrush Shrubland</i></b></li> <li>• <b><i>Inter-Mountain Basins Big Sagebrush Shrubland</i></b></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <b><i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></b></li> </ul> <p><b>Category B:</b> 48% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <b><i>Inter-Mountain Basins Montane Sagebrush Steppe</i></b></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 96% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodland</i></b></li> </ul> <p><b>Inyo NF representation:</b> 8% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>

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<b>1248</b>	<p><b>General location:</b> White Mountains Management Area <b>Size:</b> 38,756 acres</p> <p><b>Category A:</b> 31% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 41% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 93% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> 6% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<b>1258</b>	<p><b>General location:</b> White Mountains Management Area <b>Size:</b> 35,248 acres</p> <p><b>Category A:</b> 18% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 35% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 84% of the inventory unit is comprised of ecological groups which</p>

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	<p>have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodland</i></b></li> </ul> <p><b>Inyo NF representation:</b> 3% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1275</b></p>	<p><b>General location:</b> White Mountains Management Area <b>Size:</b> 10,435 acres adjacent to White Mountains Wilderness</p> <p><b>Category A:</b> 33% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <b><i>Inter-Mountain Basins Big Sagebrush Shrubland</i></b></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <b><i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></b></li> </ul> <p><b>Category B:</b> 59% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <b><i>Inter-Mountain Basins Montane Sagebrush Steppe</i></b></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 90% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodland</i></b></li> </ul> <p><b>Inyo NF representation:</b> 7% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1276</b></p>	<p><b>General location:</b> White Mountains Management Area <b>Size:</b> 1,048 acres adjacent to White Mountains Wilderness</p> <p><b>Category A:</b> 67% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 73% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological</p>

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	<p>groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 92% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> 21% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1281</b></p>	<p><b>General location:</b> White Mountains Management Area <b>Size:</b> 11,210 acres adjacent to White Mountains Wilderness</p> <p><b>Category A:</b> 5% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> 31% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 87% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> Less than one percent of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1295</b></p>	<p><b>General location:</b> White Mountains Management Area <b>Size:</b> 2,065 acres adjacent to White Mountains Wilderness</p> <p><b>Category A:</b> 14% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> </ul>

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	<p><b>Category B:</b> 16% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 20% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> 5% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1297</b></p>	<p><b>General location:</b> White Mountains Management Area <b>Size:</b> 1,092 acres adjacent to White Mountains Wilderness</p> <p><b>Category A:</b> 81% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 83% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 92% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> 26% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1301</b></p>	<p><b>General location:</b> White Mountains Management Area <b>Size:</b> 3,010 acres adjacent to White Mountains Wilderness</p> <p><b>Category A:</b> 71% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p>

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	<ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 74% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 96% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> 17% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1308</b></p>	<p><b>General location:</b> White Mountains Management Area <b>Size:</b> 13,886 acres adjacent to White Mountains Wilderness</p> <p><b>Category A:</b> 70% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 76% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 98% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> 23% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>

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<b>1311</b>	<p><b>General location:</b> White Mountains Management Area  <b>Size:</b> 11,214 acres adjacent to Boundary Peak and White Mountains Wilderness</p> <p><b>Category A:</b> 17% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 37% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 75% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> 4% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<b>1312</b>	<p><b>General location:</b> White Mountains Management Area  <b>Size:</b> 8,133 acres adjacent to Boundary Peak Wilderness (comprised of three sub-areas)</p> <p><b>Category A:</b> 5% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> </ul> <p><b>Category B:</b> 29% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 72% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul>

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	<p><b>Inyo NF representation:</b> Less than one percent of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1326</b></p>	<p><b>General location:</b> White Mountains Management Area <b>Size:</b> 5,464 acres</p> <p><b>Category A:</b> 25% percent of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 37% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 92% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodland</i></b></li> </ul> <p><b>Inyo NF representation:</b> 4% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1332</b></p>	<p><b>General location:</b> Pizona Management Area <b>Size:</b> 5,254 acres</p> <p><b>Category A:</b> 41% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <b><i>Inter-Mountain Basins Big Sagebrush Shrubland</i></b></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 44% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul>

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	<p><b>Category C:</b> 98% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodland</i></b></li> </ul> <p><b>Inyo NF representation:</b> 4% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1339</b></p>	<p><b>General location:</b> Pizona Management Area <b>Size:</b> 19,826 acres</p> <p><b>Category A:</b> 28% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <b><i>Inter-Mountain Basins Big Sagebrush Shrubland</i></b></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 35% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <b><i>Inter-Mountain Basins Montane Sagebrush Steppe</i></b></li> </ul> <p><b>Category C:</b> 99% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodland</i></b></li> </ul> <p><b>Inyo NF representation:</b> 1% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1342</b></p>	<p><b>General location:</b> White Mountains Management Area <b>Size:</b> 6,144 acres</p> <p><b>Category A:</b> 31% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <b><i>Inter-Mountain Basins Big Sagebrush Shrubland</i></b></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 35% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological</p>

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	<p>groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 90% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodland</i></b></li> </ul> <p><b>Inyo NF representation:</b> 2% of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1355</b></p>	<p><b>General location:</b> Pizona Management Area <b>Size:</b> 10,297 acres</p> <p><b>Category A:</b> 30% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <b><i>Inter-Mountain Basins Big Sagebrush Shrubland</i></b></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 31% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 100% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodland</i></b></li> </ul> <p><b>Inyo NF representation:</b> Less than one percent of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<p><b>1357</b></p>	<p><b>General location:</b> Pizona Management Area <b>Size:</b> 5,805 acres</p> <p><b>Category A:</b> 52% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <b><i>Inter-Mountain Basins Big Sagebrush Shrubland</i></b></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul>

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	<p><b>Category B:</b> 52% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 100% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodland</i></b></li> </ul> <p><b>Inyo NF representation:</b> Less than one percent of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<b>1361</b>	<p><b>General location:</b> Pizona Management Area <b>Size:</b> 8,855 acres</p> <p><b>Category A:</b> 34% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <b><i>Inter-Mountain Basins Big Sagebrush Shrubland</i></b></li> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 35% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 99% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodland</i></b></li> </ul> <p><b>Inyo NF representation:</b> Less than one percent of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<b>1376</b>	<p><b>General location:</b> Benton-Casa Diablo Management Area <b>Size:</b> 9,922 acres</p> <p><b>Category A:</b> 9% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Xeric Mixed Sagebrush Shrubland</i></li> <li>• <b><i>Inter-Mountain Basins Big Sagebrush Shrubland</i></b></li> </ul>

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	<ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Semi-Desert Shrub Steppe</i></li> <li>• <i>Inter-Mountain Basins Mixed Salt Desert Scrub</i></li> </ul> <p><b>Category B:</b> 15% of this inventory unit is comprised of ecological groups which have less than ten percent of their total area protected in the NWPS. Ecological groups in category B include:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Montane Sagebrush Steppe</i></li> <li>• <i>Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland</i></li> </ul> <p><b>Category C:</b> 100% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodland</i></b></li> </ul> <p><b>Inyo NF representation:</b> Less than one percent of the area of this inventory unit contains ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>
<b>1432</b>	This area is on the Sequoia NF
<b>1391</b>	<p><b>General location:</b> South Sierra Management Area <b>Size:</b> 33,248 acres adjacent to South Sierra Wilderness</p> <p><b>Category A:</b> 11% of the inventory unit is comprised of the following ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <b><i>Inter-Mountain Basins Big Sagebrush Shrubland</i></b></li> </ul> <p><b>Category B:</b> none</p> <p><b>Category C:</b> 53% of the inventory unit is comprised of ecological groups which have less than twenty percent of their total area protected in the NWPS. Ecological groups in Category C include:</p> <ul style="list-style-type: none"> <li>• <b><i>Great Basin Pinyon-Juniper Woodland</i></b></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Inyo NF representation:</b> This inventory unit does not contain any ecological groups with less than twenty percent of their area on the Inyo NF in designated wilderness.</p>

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**Background**

The Wilderness Society (TWS) comments indicated the Wilderness Evaluation process should consider the suitability of Wilderness Inventory Areas with under-represented and rare ecosystems. The Wilderness Society utilized several sets of available information at the national scale to identify under-represented ecosystems in the National Wilderness Preservation System (NWPS).

The National Vegetation Classification System Group 6<sup>1</sup> data was used to identify the set of forty-two ecological group within the Sierra NF. For each ecological group on the forest, the Wilderness Society provided two calculations: the percentage of an ecological group's total area (nation-wide) that is within the NWPS; the percentage of an ecological group's area within the Sierra NF that is within designated wilderness. The ecological groups were divided into four classes of representation, which are termed categories A through D below.

**Category A** is ecological groups on the Sierra NF that have less than five percent of their area protected within the NWPS:

*Inter-Mountain Basins Big Sagebrush Shrubland-3% protected in NWPS*

*Inter-Mountain Basins Big Sagebrush Steppe-2% protected in NWPS*

*Temperate Pacific Freshwater Mudflat- 5% protected in NWPS*

**Category B** is ecological groups on the Sierra NF that have between five and ten percent of their area protected within the NWPS:

1. *Open Water – fresh – 6% protected in NWPS*

**Category C** is ecological groups on the Sierra NF that have between ten and twenty percent of their area protected within the NWPS. The Wilderness Society indicated it considers ecological groups with less than twenty percent of its total area in the NWPS as inadequately represented<sup>2</sup>.

1. *California Central Valley and Southern Coastal Grassland-12% protected in NWPS*

2. *California Central Valley Mixed Oak Savanna-14% protected in NWPS*

3. *California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna-11% protected in NWPS*

4. *Great Basin Pinyon-Juniper Woodlands – 14% of ecosystem protected in NWPS*

5. *Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland-19% protected in NWPS*

6. *Mediterranean California Mesic Mixed Conifer Forest and Woodland-12% protected in NWPS*

7. *Mediterranean California Mixed Oak Woodland-10% protected in NWPS*

8. *Northern and Central California Dry-Mesic Chaparral-11% protected in NWPS*

9. *Rocky Mountain Aspen Forest and Woodland – 12% of ecosystem protected in NWPS.*

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<sup>1</sup> The National Vegetation Classification System website indicates the ecological context for Group 6 data: regional mesoclimate, geology, substrates, hydrology and disturbance regimes.

<sup>2</sup> The twenty percent representation threshold is based on Society for Conservation Biology and Convention on Biological Diversity targets (personal communication with Matt Dietz).

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**Category D** is ecological groups on the Sierra NF that have more than twenty percent of their area protected within the NWPS, and are not discussed further.

**Data Management and processing**

1. Six of the forty-two ecological groups were not considered in this summary because their label indicated they are developed land.
2. No Category B data on the *open water (fresh)* ecosystem will be summarized because the TWS data did not include the acreage for this ecosystem on individual wilderness inventory units.
3. Area size information was converted from hectares to acres.
4. Ecological group in each category were ranked by size, largest to smallest.
5. Ecological group in each category with less than 1,000 total acres on all Sierra NF non-wilderness lands were not included in this summary.
6. For each category, the acres for the ecological groups in that category were summed for each wilderness inventory unit.
7. The percentage of each wilderness inventory unit's total area comprised of "under-represented" ecological groups was calculated.

The table below summarizes TWS "representation" data for each wilderness inventory area listed in the polygon column:

**General location:** Indicates whether the unit is adjacent to designated wilderness.

**Size:** The area in acres indicated is the "parent polygon".

**Category A:** The summary first displays the percentage of the wilderness inventory unit comprised of Category A ecological groups, and the types of type of ecological groups in Category A within the inventory unit. Any ecological groups with more than 1,000 acres in an inventory unit is highlighted in bold font.

**Category C:** Next, the summary displays the percentage of the wilderness inventory unit comprised of Category C ecological groups and the types of ecological groups within the inventory unit. Any ecological groups with more than 1,000 acres in an inventory unit is highlighted in bold font. **Note:** The percent of the wilderness inventory unit comprised of Category C ecosystems includes the area of Category A ecosystems (the names of the Category A ecosystems, however, are not listed again under Category C).

**Sierra NF representation:** The forest representation section displays two percentages. The first is the percentage of the area of a wilderness inventory unit that is comprised of ecological groups that have **less than five percent** of their total area on the forest in designated wilderness. The ecological groups with less than five percent of their total acreage on the forest in designated wilderness include:

- *California Central Valley Mixed Oak Savanna*
- *California Central Valley and Southern Coastal Grassland*
- *California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna*

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- *Northern and Central California Dry-Mesic Chaparral*
- *Mediterranean California Dry-Mesic Mixed Conifer Forest and Woodland*
- *Recently burned forest acres*
- *Temperate Pacific Freshwater Mudflat*
- The second percentage is the percentage of the area of a wilderness inventory unit that is comprised of ecological groups that have **less than twenty percent** of their total acreage on the forest in designated wilderness. The ecological groups with less than twenty percent of their total acreage on the forest in designated wilderness include the same ecological groups as above, with the addition of:
  - *Mediterranean California Mixed Oak Woodland*
  - *Mojave Mid-elevation Mixed Desert Scrub*

Wilderness Inventory Unit	Summary
<b>227</b>	<p><b>General location:</b> Not adjacent to designated wilderness  <b>Size:</b> 15,358 acres</p> <p><b>Category A:</b> Less than 1% of this inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 78% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <b><i>California Central Valley Mixed Oak Savanna</i></b></li> <li>• <b><i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></b></li> <li>• <b><i>Mediterranean California Mixed Oak Woodland</i></b></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> <li>• <i>California Central Valley and Southern Coastal Grassland</i></li> </ul> <p><b>Sierra NF Representation:</b>            65% percent of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.            95% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>304</b>	<p><b>General location:</b> Not adjacent to designated wilderness  <b>Size:</b> 5,916 acres</p> <p><b>Category A:</b> There are no Category A ecological groups, which have less than five percent of their total area protected in the NWPS, in this wilderness inventory unit.</p>

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	<p><b>Category C:</b> 88% of this Inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> </ul> <p><b>Sierra NF Representation:</b> 87% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness. 95% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<p><b>315</b></p>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 17,908 acres</p> <p><b>Category A:</b> 2% of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 62% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> </ul> <p><b>Sierra NF Representation:</b> 35% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness. 73% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<p><b>330</b></p>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 7,804 acres</p> <p><b>Category A:</b> 9% of this inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> </ul>

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	<ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 85% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> </ul> <p><b>Sierra NF Representation:</b> 2% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness. 68% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>357</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 5,374 acres</p> <p><b>Category A:</b> Less than one percent of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 45% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <b><i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></b></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> </ul> <p><b>Sierra NF Representation:</b> 72% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness. 93% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>441</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 6,892 acres</p> <p><b>Category A:</b> 10% of this Inventory unit is comprised of the following Category A ecological groups, which has less than five percent of their total area protected in the</p>

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	<p>NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 28% percent of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> </ul> <p><b>Sierra NF Representation:</b> None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>16% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>539</b>	<p><b>General location:</b> Adjacent to Dinkey Lakes Wilderness <b>Size:</b> 48,312 acres</p> <p><b>Category A:</b> 3% of this Inventory unit is comprised of the following Category A ecological groups, which has less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> <li>• <i>Temperate Pacific Freshwater Mudflat</i></li> </ul> <p><b>Category C:</b> 6% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> </ul> <p><b>Sierra NF Representation:</b> 1% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>3% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>557</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 5,072 acres</p> <p><b>Category A:</b> 1% of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain basins Big Sagebrush Shrubland</i></li> </ul>

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	<p><b>Category C:</b> 34% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> </ul> <p><b>Sierra NF Representation:</b></p> <p>58% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness. Most of the ecological group acreage in this unit is “recently burned forest acres”.</p> <p>90% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
577	<p><b>General location:</b> Adjacent to Kaiser Wilderness <b>Size:</b> 7,127 acres</p> <p><b>Category A:</b> 1% of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 25% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Sierra NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>22% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
586	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 5,412 acres</p> <p><b>Category A:</b> 1% of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain basins Big Sagebrush Shrubland</i></li> </ul>

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	<p><b>Category C:</b> 63% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> </ul> <p><b>Sierra NF Representation:</b></p> <p>25% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>85% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<p><b>646</b></p>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 18,013 acres</p> <p><b>Category A:</b> 4% of this inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 47% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Sierra NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>41% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<p><b>688</b></p>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 6,515 acres</p> <p><b>Category A:</b> 8% of this inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain basins Big Sagebrush Shrubland</i></li> </ul>

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	<p><b>Category C:</b> 71% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Sierra NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>56% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>772</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 47,747 acres</p> <p><b>Category A:</b> 1% of this inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 70% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <b><i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></b></li> <li>• <b><i>Mediterranean California Mixed Oak Woodland</i></b></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> <li>• <b><i>Northern and Central California Dry-Mesic Chaparral</i></b></li> </ul> <p><b>Sierra NF Representation:</b></p> <p>34% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>91% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>781</b>	<p><b>General location:</b> Adjacent to John Muir Wilderness <b>Size:</b> 2,477 acres</p> <p><b>Category A:</b> 21% percent of this inventory unit is comprised of the following Category A ecological groups, which has less than five percent of their total area protected in the</p>

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	<p>NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 32% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> </ul> <p><b>Sierra NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>9% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>785</b>	<p><b>General location:</b> Adjacent to John Muir Wilderness <b>Size:</b> 1,254 acres</p> <p><b>Category A:</b> 46% of this inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Temperate Pacific Freshwater Mudflat</i></li> </ul> <p><b>Category C:</b> 50% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Sierra NF Representation:</b></p> <p>27% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>27% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>795</b>	<p><b>General location:</b> Adjacent to John Muir Wilderness <b>Size:</b> 1,206 acres</p> <p><b>Category A:</b> 9% of this inventory unit is comprised of the following Category A ecological groups, which has less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 17% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul>

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	<ul style="list-style-type: none"> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> </ul> <p><b>Sierra NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>1% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>797</b>	<p><b>General location:</b> Adjacent to John Muir Wilderness</p> <p><b>Size:</b> 1,299 acres</p> <p><b>Category A:</b> None of this inventory unit is comprised of the following Category A ecological groups, which has less than five percent of their total area protected in the NWPS.</p> <p><b>Category C:</b> 2% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul> <p><b>Sierra NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>1% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>815</b>	<p><b>General location:</b> Adjacent to John Muir Wilderness</p> <p><b>Size:</b> 3,888 acres</p> <p><b>Category A:</b> 12% of this inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Temperate Pacific Freshwater Mudflat</i></li> </ul> <p><b>Category C:</b> 14% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> </ul> <p><b>Sierra NF Representation:</b></p>

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	<p>9% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>9% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>819</b>	<p><b>General location:</b> Adjacent to John Muir Wilderness <b>Size:</b> 37,528 acres</p> <p><b>Category A:</b> 6% of this inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 60% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> </ul> <p><b>Sierra NF Representation:</b></p> <p>23% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>63% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>820</b>	<p><b>General location:</b> Adjacent to John Muir Wilderness <b>Size:</b> 1,741 acres</p> <p><b>Category A:</b> 15% of this inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 56% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul>

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	<ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> </ul> <p><b>Sierra NF Representation:</b></p> <p>23% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>33% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<p><b>821</b></p>	<p><b>General location:</b> Adjacent to Yosemite National Park Wilderness <b>Size:</b> 13,370 acres</p> <p><b>Category A:</b> Less than 1% of this inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 16% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> </ul> <p><b>Sierra NF Representation:</b></p> <p>Less than one percent of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>14% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<p><b>822</b></p>	<p><b>General location:</b> Adjacent to Ansel Adams Wilderness <b>Size:</b> 10,581 acres</p> <p><b>Category A:</b> 3% of this inventory unit is comprised of the following Category A ecological groups, which has less than five percent of its total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 16% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> </ul> <p><b>Sierra NF Representation:</b></p>

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	<p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>11% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<p><b>1378</b></p>	<p><b>General location:</b> Adjacent to John Muir Wilderness</p> <p>Note – This WIA may be located on both Sierra and Sequoia NF [UFS1]</p> <p><b>Size:</b> 71,974 acres</p> <p><b>Category A:</b> 1% of this inventory unit is comprised of the following Category A ecological groups, which has less than five percent of its total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 31% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> </ul> <p><b>Sierra NF Representation:</b></p> <p>16% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>33% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>

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**Background**

The Wilderness Society (TWS) comments indicated the Wilderness Evaluation process should consider the suitability of Wilderness Inventory Areas with under-represented and rare ecosystems. The Wilderness Society utilized several sets of available information at the national scale to identify under-represented ecosystems in the National Wilderness Preservation System (NWPS).

The National Vegetation Classification System Group 6<sup>1</sup> (ecological group) data was used to identify a set of forty-four "ecosystems" that are within the Sequoia NF boundary. For each ecological group on the forest, the Wilderness Society provided two calculations: the percentage of an ecological group's total area (nation-wide) that is within the NWPS; the percentage of an ecological group's area within the Sequoia NF that is within designated wilderness. The ecological groups were divided into four classes of representation, which are termed categories A through D below.

**Category A** is ecological groups on the Sequoia NF that have less than five percent of their area protected within the NWPS:

1. *Inter-Mountain Basins Big Sagebrush Shrubland-three percent protected in NWPS*
2. *Inter-Mountain Basins Big Sagebrush Steppe-two percent protected in NWPS*

**Category B** is ecological groups on the Sequoia NF that have between five and ten percent of their area protected within the NWPS:

- *There are no ecological groups on the Sequoia NF in this category of representation.*

**Category C** is ecological groups on the Sequoia NF that have between ten and twenty percent of their area protected within the NWPS. The Wilderness Society indicated it considers ecological groups with less than twenty percent of its total area in the NWPS as inadequately represented<sup>2</sup> in the NWPS.

1. *California Central Valley and Southern Coastal Grassland-12% protected in NWPS*
2. *California Central Valley Mixed Oak Savanna-14% percent protected in NWPS*
3. *California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna-11% protected in NWPS*
4. *Great Basin Pinyon-Juniper Woodlands – 14% protected in NWPS*
5. *Mediterranean California Mesic Mixed Conifer Forest and Woodland-12% protect in NWPS*
6. *Mediterranean California Mixed Oak Woodland-10% protected in NWPS*
7. *Northern and Central California Dry-Mesic Chaparral-11% protected in NWPS*
8. *Rocky Mountain Aspen Forest and Woodland – 12% of ecosystem protected in NWPS.*

**Category D** is ecological groups on the Sequoia NF that have more than twenty percent of their area protected within the NWPS, and are not discussed further.

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<sup>1</sup> The National Vegetation Classification System website indicates the ecological context for Group 6 data: regional mesoclimate, geology, substrates, hydrology and disturbance regimes.

<sup>2</sup> The twenty percent representation threshold is based on Society for Conservation Biology and Convention on Biological Diversity targets (personal communication with Matt Dietz).

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**Data Management and processing**

1. Eight of the forty-four ecological groups were not considered in this summary because their label indicated they are developed land.
2. Area size information was converted from hectares to acres.
3. Ecological groups in each category were ranked by size, largest to smallest.
4. Ecological groups in each category with less than 1,000 total acres on all Sequoia NF non-wilderness lands were not included in this summary.
5. For each category, the acres for the ecological groups in that category were summed for each wilderness inventory unit.
6. The percentage of each wilderness inventory unit's total area comprised of "under-represented" ecological groups was calculated.

The table below summarizes TWS "representation" data for each wilderness inventory area listed in the polygon column:

**General location:** Indicates whether the unit is adjacent to designated wilderness.

**Size:** The area in acres indicated is the "parent polygon".

**Category A:** The summary first displays the percentage of the wilderness inventory unit comprised of Category A ecological groups, and the types of type of ecological groups in Category A within the inventory unit. Any ecological groups with more than 1,000 acres in an inventory unit is highlighted in bold font. **Category C:** Next, the summary displays the percentage of the wilderness inventory unit comprised of Category C ecological groups, and the types of ecological groups in Category C within the inventory unit. Any ecological groups with more than 1,000 acres in an inventory unit is highlighted in bold font. **Note:** The percent of the wilderness inventory unit comprised of Category C ecological groups includes the area of Category A ecological groups (the names of the Category A ecosystems, however, are not listed again under Category C).

**Sequoia NF representation:** The forest representation section displays two percentages. The first is the percentage of the area of a wilderness inventory unit that is comprised of ecological groups that have less than five percent of their total area on the forest in designated wilderness. The ecological groups with less than five percent of their total acreage on the forest in designated wilderness include:

- *California Central Valley Mixed Oak Savanna*
- *California Central Valley and Southern Coastal Grassland*

The second percentage is the percentage of the area of a wilderness inventory unit that is comprised of ecological groups that have less than twenty percent of their total acreage on the forest in designated wilderness. The ecological groups with less than twenty percent of their total acreage on the forest in designated wilderness include the same ecological groups as above, with the addition of:

- *California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna*
- *Mediterranean California Dry-Mesic Mixed Conifer Forest and Woodland*

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- *Mediterranean California Mesic Mixed Conifer Forest and Woodland*
- *Mediterranean California Mixed Oak Woodland*
- *Northern and Central California Dry-Mesic Chaparral*

<b>Wilderness Inventory Unit</b>	<b>Summary</b>
<b>18</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 6,337 acres</p> <p><b>Category A:</b> 2% of this inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 38% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>29% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>36</b>	<p><b>General location:</b> Not adjacent to wilderness <b>Size:</b> 2,089 acres</p> <p><b>Category A:</b> 1% of this inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 34% of this Inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> </ul>

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	<ul style="list-style-type: none"> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>36% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>63</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 5,223 acres</p> <p><b>Category A:</b> 1% of this Inventory unit is comprised of the following Category A ecological group, which has less than five percent of its total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 30% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>6% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>32% percent of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>66</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 8,289 acres</p> <p><b>Category A:</b> Less than one percent of this inventory unit is comprised of the following Category A ecological group, which has less than five percent of its total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 88% percent of this inventory unit is comprised of the following ecosystems, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley and Southern Coastal Grassland</i></li> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> </ul>

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	<ul style="list-style-type: none"> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>28% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>37% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>73</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 15,128 acres</p> <p><b>Category A:</b> 1% of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 31% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley and Southern Coastal Grassland</i></li> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <b><i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></b></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <b><i>Mediterranean California Mixed Oak Woodland</i></b></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>32% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>99</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 9,386 acres</p> <p><b>Category A:</b> Less than one percent of this inventory unit is comprised of Category A ecological groups. which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul>

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	<ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 34% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>34% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>120</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 6,855 acres</p> <p><b>Category A:</b> None of this Inventory unit is comprised of Category A ecological groups.</p> <p><b>Category C:</b> 38% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley and Southern Coastal Grassland</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <b><i>Mediterranean California Mixed Oak Woodland</i></b></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>38% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>160</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 16,126 acres</p> <p><b>Category A:</b> Less than one percent of this Inventory unit is comprised of the following Category A ecological group, which has less than five percent of its total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 17% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> </ul>

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	<ul style="list-style-type: none"> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>16% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>162</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 15,806 acres</p> <p><b>Category A:</b> None of this Inventory unit is comprised of a Category A ecological group.</p> <p><b>Category C:</b> 38% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley and Southern Coastal Grassland</i></li> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <b><i>Mediterranean California Mixed Oak Woodland</i></b></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>3% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>38% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>173</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 5,307 acres</p> <p><b>Category A:</b> None of this Inventory unit is comprised of a Category A ecological group.</p> <p><b>Category C:</b> 39% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley and Southern Coastal Grassland</i></li> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <b><i>Mediterranean California Mixed Oak Woodland</i></b></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> </ul>

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	<p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>39% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>190</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 7,100 acres</p> <p><b>Category A:</b> Less than one percent of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 36% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley and Southern Coastal Grassland</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <b><i>Mediterranean California Mixed Oak Woodland</i></b></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>36% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>1364</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 9,203 acres</p> <p><b>Category A:</b> Less than one percent of this Inventory unit is comprised of the following Category A ecological group, which has less than five percent of its total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 39% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley and Southern Coastal Grassland</i></li> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and</i></li> </ul>

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	<p style="text-align: center;"><i>Savanna</i></p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <b><i>Mediterranean California Mixed Oak Woodland</i></b></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>7% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>38% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>1377</b>	<p><b>General location:</b> Adjacent to Monarch Wilderness <b>Size:</b> 11,559 acres</p> <p><b>Category A:</b> 1% of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 24% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>23% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>1380</b>	<p><b>General location:</b> Adjacent to Jennie Lakes Wilderness <b>Size:</b> 1,316 acres</p> <p><b>Category A:</b> 3% of this Inventory unit is comprised of the following Category A ecological group, which has less than five percent of its total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 21% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul>

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	<p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>17% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>1381</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 1,317 acres</p> <p><b>Category A:</b> 1% of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 19% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>17% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>1384</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 39,629 acres</p> <p><b>Category A:</b> 7% of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 27% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul>

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	<p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>12% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<p><b>1385</b></p>	<p><b>General location:</b> Adjacent to Jennie Lakes Wilderness and Sequoia and Kings Canyon NP <b>Size:</b> 8,216 acres</p> <p><b>Category A:</b> 1% of this Inventory unit is comprised of the following Category A ecological group, which has less than five percent of its total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 1% inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>None of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<p><b>1387</b></p>	<p><b>General location:</b> Adjacent to Golden Trout Wilderness <b>Size:</b> 89,629 acres</p> <p><b>Category A:</b> 2% of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 26% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p>

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	<p>21% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<p><b>1390</b></p>	<p><b>General location:</b> Adjacent to Golden Trout Wilderness <b>Size:</b> 1,100 acres</p> <p><b>Category A:</b> 4% of this Inventory unit is comprised of the following Category A ecological group, which has less than five percent of its total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 13% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>One percent of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<p><b>1394</b></p>	<p><b>General location:</b> Adjacent to Domeland Wilderness <b>Size:</b> 51,801 acres</p> <p><b>Category A:</b> 12% of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 21% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul>

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	<p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>3% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<p><b>1395</b></p>	<p><b>General location:</b> Adjacent to Golden Trout Wilderness</p> <p><b>Size:</b> 2,285 acres</p> <p><b>Category A:</b> Less than one percent of this Inventory unit is comprised of the following Category A ecological group, which has less than five percent of its total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 4% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b> 2% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness. None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p>
<p><b>1397</b></p>	<p><b>General location:</b> Not adjacent to designated wilderness</p> <p><b>Size:</b> 3,104 acres</p> <p><b>Category A:</b> Less than one percent of this Inventory unit is comprised of the following Category A ecological group, which has less than five percent of its total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 14% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>14% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>

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<b>1404</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 6,068 acres</p> <p><b>Category A:</b> None of this Inventory unit is comprised of a Category A ecological group.</p> <p><b>Category C:</b> 38% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley and Southern Coastal Grassland</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <b><i>Mediterranean California Mixed Oak Woodland</i></b></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>38% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>1408</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 48,730 acres</p> <p><b>Category A:</b> 3% of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <b><i>Inter-Mountain basins Big Sagebrush Steppe</i></b></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 35% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <b><i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></b></li> <li>• <b><i>Great Basin Pinyon-Juniper Woodland</i></b></li> <li>• <b><i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></b></li> <li>• <b><i>Mediterranean California Mixed Oak Woodland</i></b></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>Less than one percent of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>29% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>

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<b>1410</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 8,494 acres</p> <p><b>Category A:</b> 2% of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 15% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>7% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>1420</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 6,398 acres</p> <p><b>Category A:</b> Less than one percent of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 37% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley and Southern Coastal Grassland</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five</p>

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	<p>percent of their area on the Forest protected in designated wilderness.</p> <p>37% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>1422</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 8,008 acres</p> <p><b>Category A:</b> 5% of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 37% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>Less than one percent of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>25% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>1425</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 14,675 acres</p> <p><b>Category A:</b> 1% of this Inventory unit is comprised of the following Category A ecological group, which has less than five percent of its total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 32% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley and Southern Coastal Grassland</i></li> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <b><i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></b></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <b><i>Mediterranean California Mixed Oak Woodland</i></b></li> </ul>

**Sequoia NF Wilderness Inventory Areas  
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	<ul style="list-style-type: none"> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>6% of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>30% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>1426</b>	<p><b>General location:</b> Adjacent to Bright Star (BLM) Wilderness <b>Size:</b> 49,918 acres</p> <p><b>Category A:</b> 7% of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 33% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Central Valley Mixed Oak Savanna</i></li> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>17% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>1427</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 6,747 acres</p> <p><b>Category A:</b> 5% of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 25% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> </ul>

**Sequoia NF Wilderness Inventory Areas  
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	<ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>17% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>1429</b>	<p><b>General location:</b> Not adjacent to designated wilderness <b>Size:</b> 2,729 acres</p> <p><b>Category A:</b> Less than one percent of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 34% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>35% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>1431</b>	<p><b>General location:</b> Adjacent to Domeland Wilderness <b>Size:</b> 7,234 acres</p> <p><b>Category A:</b> 7% of this Inventory unit is comprised of the following Category A ecological group, which has less than five percent of its total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 14% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> </ul>

**Sequoia NF Wilderness Inventory Areas  
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	<ul style="list-style-type: none"> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>None of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>1432</b>	<p><b>General location:</b> Adjacent to Golden Trout Wilderness <b>Size:</b> 1,133 acres</p> <p><b>Category A:</b> Less than one percent of this Inventory unit is comprised of the following Category A ecological group, which has less than five percent of its total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 3% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>None of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<b>1434</b>	<p><b>General location:</b> Adjacent to Monarch Wilderness <b>Size:</b> 3,726 acres</p> <p><b>Category A:</b> 1% of this Inventory unit is comprised of the following Category A ecological groups, which have less than five percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain basins Big Sagebrush Steppe</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> </ul> <p><b>Category C:</b> 30% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna</i></li> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest and Woodland</i></li> <li>• <i>Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b></p> <p>None of this inventory unit is comprised of ecological groups that have less than five</p>

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	<p>percent of their area on the Forest protected in designated wilderness.</p> <p>33% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>
<p><b>1391</b></p>	<p><b>General location:</b> Adjacent to South Sierra Wilderness.</p> <p>Note – Portions of 1391 are located on both the Inyo and Sequoia NF – TWS data indicated this unit as #1458</p> <p><b>Size:</b> 17,253 acres</p> <p><b>Category A:</b> 7% of this inventory unit is comprised of the following Category A ecological groups, which has less than five percent of its total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Inter-Mountain Basins Big Sagebrush Shrubland</i></li> <li>• <i>Inter-Mountain Basins Big Sagebrush Steppe</i></li> </ul> <p><b>Category C:</b> 14% of this inventory unit is comprised of the following ecological groups, which have less than twenty percent of their total area protected in the NWPS:</p> <ul style="list-style-type: none"> <li>• <i>Great Basin Pinyon-Juniper Woodland</i></li> <li>• <i>Mediterranean California Mesic Mixed Conifer Forest Mediterranean California Mixed Oak Woodland</i></li> <li>• <i>Northern and Central California Dry-Mesic Chaparral</i></li> <li>• <i>Rocky Mountain Aspen Forest and Woodland</i></li> </ul> <p><b>Sequoia NF Representation:</b> None of this inventory unit is comprised of ecological groups that have less than five percent of their area on the Forest protected in designated wilderness.</p> <p>Less than 1% of this inventory unit is comprised of ecological groups that have less than twenty percent of their area on the Forest protected in designated wilderness.</p>

**Exhibit 3: Excerpt from Comments Submitted by The Wilderness Society et al to the Gila National Forest on the Draft Evaluation Process Paper, December 20, 2017**

**Draft Evaluation Process Paper**

Overall, we found the draft evaluation process paper to provide a clear and transparent articulation of the methodology and criteria the Forest Service intends to use in the wilderness evaluation, and we believe most elements of the paper are consistent with the Chapter 70 directives. We do have significant concerns, however, with the forest’s proposed approach for evaluating manageability, as well as several other concerns that are discussed below.

***Manageability***

We are concerned that the evaluation of a unit’s manageability (Step 2) prior to the evaluation of its wilderness characteristics (Steps 3-5) – and the proposed approach of ceasing the evaluation for areas determined to be “not manageable” – gives the manageability criterion undue weight and focus and is contrary to the requirement to evaluate “all lands identified in the inventory.” FSH 1909.12, ch. 70, § 72.1. We have seen forests around the country struggle to properly apply the manageability criterion and do not want the Gila to repeat those mistakes. We assume the forest’s suggested approach of ceasing the evaluation for areas determined to be “not manageable” is designed to enhance efficiency. In practice, however, that approach will likely have the opposite effect, where challenges to a finding that an area is not manageable would require the Forest Service to go back and complete the evaluation of the area, and then provide additional opportunity for public input on the new components of the evaluation. A more defensible approach would be to evaluate manageability after the evaluation of apparent naturalness, outstanding opportunities for solitude or primitive and unconfined recreation, and supplemental values. That approach would be consistent with the Chapter 70 directives, which list manageability as the fifth and final evaluation criterion, and which require a full evaluation of all inventoried areas. Indeed, the purpose of the Chapter 70 evaluation is to evaluate the wilderness characteristics of each area included in the inventory based on the criteria set forth in the Wilderness Act of 1964. Manageability is not a criterion in the Wilderness Act and should not be used to disqualify areas that otherwise possess wilderness characteristics.

We are also concerned by the binary approach of determining each area to be manageable or not manageable. Like the other evaluation criteria, an area’s manageability will generally fall on a spectrum. For that very reason, the Chapter 70 directives require the Forest Service to “evaluate *the degree* to which the area may be managed to preserve its wilderness characteristics.” FSH 1909.12, ch. 70, § 72.1(5) (emphasis added). For instance, an area’s shape or configuration may make management to preserve wilderness characteristics more difficult, but rarely would it make an area that is otherwise suitable for inclusion in the National Wilderness Preservation System “not manageable.” Moreover, because most manageability concerns can be addressed through boundary adjustments, ceasing the evaluation of the entire area as “not manageable” would be illogical. Instead, the Forest Service should articulate a ranking system for manageability similar to that used for the other evaluation criteria. It will be important that any point system assigned to the various rankings not be given undue weight such that a moderate or low manageability score would be determinative of the overall unit ranking. If an area is truly not manageable based on the factors listed in section 72.1(5) of the Chapter 70 directives, then we support the Forest Service denoting that as part of the overall unit ranking and not carrying the area forward for analysis, but that will be an extremely rare occurrence.

In evaluating manageability, it will also be important that the Forest Service does not confuse “manageability” with the sorts of “management trade-offs” that are properly considered during the analysis phase of Chapter 70. The draft evaluation process paper properly lists the five factors from section 72.1(5) of the Chapter 70 directives to consider when evaluating manageability: (a) shape and configuration of the area; (b) legally established rights or uses within the area; (c) specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics; (d) the presence and amount of non-Federal land in the area; and (e) management of adjacent lands. As these factors highlight, the evaluation of manageability is meant to address the geographical shape and configuration of the area and any governing legal requirements – *not* existing or proposed uses or activities that might be inconsistent with wilderness management. The latter are better characterized as management trade-offs that should be analyzed in the plan EIS. For instance, consideration of how to balance things like motorized recreational opportunities or the need for more active forest management with protection of wilderness characteristics is a management trade-off that should be analyzed in the EIS and is not an appropriate consideration at the evaluation stage or in determining areas to carry forward for NEPA analysis. While the draft evaluation process paper appears to properly limit the evaluation of manageability to appropriate considerations, making it clear that those sorts of management trade-offs will be considered in the analysis phase would aid in public transparency.

#### ***Ceasing evaluation due to a ranking of “NONE”***

Similar to our concern with ceasing the evaluation for areas found to be not manageable, we are concerned with the Forest Service’s proposed approach of ceasing the evaluation for areas ranked “NONE” for apparent naturalness or for opportunities for solitude or primitive and unconfined recreation. This approach is contrary to the requirement in Chapter 70 to evaluate all areas included in the inventory, and may result in significant inefficiencies where a ranking of NONE is subsequently challenged and the Forest Service is required to go back and complete the remainder of the evaluation. Moreover, a lack of naturalness or opportunities for solitude or primitive and unconfined recreation can, as a practical matter, usually be addressed through boundary adjustments. It is unclear how the approach of ranking an area as NONE and ceasing the evaluation would account for this obvious solution, and the draft evaluation process paper does not speak to this issue. The final evaluation process paper should make clear that all areas included in the final inventory will be fully evaluated, and that those areas or portions of areas that do not possess sufficient wilderness characteristics (e.g., those ranked NONE for apparent naturalness and/or for *both* opportunities for solitude and primitive and unconfined recreation) will not be carried forward for analysis in the plan EIS.

For the same reasons, we caution the Forest Service against ceasing the evaluation of areas determined not to be of sufficient size (Step 1). While we do not anticipate that this will occur – given that the draft inventory does not include areas less than 5,000 acres that are not contiguous to designated wilderness – a more defensible approach would be to complete the evaluation of the area, but not carry it forward for analysis in the plan EIS.

#### ***Opportunities for solitude***

When evaluating opportunities for solitude, we have often seen forests struggle with how to address the sights and sounds of human activities. In particular, there is an important distinction between sights and sounds originating outside the unit, as opposed to those originating from within the unit. That is

because wilderness character is evaluated from the perspective of an average visitor within the unit, or standing at the edge of the unit looking in – not standing within the unit or at the boundary looking out. Thus, outside sights and sounds are relevant to the evaluation of opportunities for solitude only to the extent that they are “pervasive and influence a visitor’s opportunity for solitude” throughout the unit. FSH 1909.12, ch. 70, § 72.1(2)(a).<sup>1</sup>The fact that many designated and recommended wilderness areas around the country are bordered by high-traffic roads or are within sight of large metropolitan areas reinforces this interpretation. The attached 2006 essay by Doug Scott provides pertinent legislative history in support of this “outside sights and sounds” doctrine.

The Gila’s draft evaluation process paper is not clear on this issue. The ranking classifications for opportunities for solitude refer simply to “sights and sounds of human activities,” which could be interpreted to encompass outside sights and sounds. To address this issue, the final evaluation process paper should refer to “sights and sounds of human activities originating within the unit.” To account for any pervasive sights and sounds originating from outside the unit, the rankings for LOW and NONE could include additional bullet points that state: “sights and sounds of human activity originating from outside the unit are pervasive throughout most of the unit” (for LOW), and “sights and sounds of human activity originating from outside the unit are pervasive throughout the entire unit and impossible to avoid” (for NONE).

### ***Opportunities for primitive and unconfined recreation***

We are confused by the ranking classification criteria addressing “limitations to visitor use.” Chapter 70 does not refer to such considerations, and we do not see how or why they would be relevant. For instance, we are unsure what “regulations and restrictions to entry” might apply to the areas included in the inventory and how or why they would restrict or enhance opportunities for primitive and unconfined recreation. Indeed, areas where visitor access is difficult may provide some of the best opportunities for truly primitive forms of recreation. At the same time, more accessible areas can also provide outstanding opportunities for primitive and unconfined recreation. Relatedly, we do not understand how potential future “additional limitations to visitor use [that] are required to protect wilderness characteristics” are relevant to the evaluation of current opportunities for primitive and unconfined recreation. This criterion improperly integrates hypothetical future wilderness management considerations into the evaluation of opportunities for primitive and unconfined recreation. Moreover, many wilderness areas around the country that require permit systems or limitations on visitor use also boast some of the best opportunities for primitive and unconfined recreation in the National Wilderness Preservation System – places like the Boundary Waters Canoe Area Wilderness, popular wilderness areas along Colorado’s front range or central mountains, and national park wilderness. In short, the amount of use does not dictate whether outstanding recreational opportunities exist. The final evaluation process paper should remove criteria focused on limitations to visitor use or other factors related to the amount of use. Instead, the Forest Service should focus the evaluation on the extent to which the unit provides visitors with opportunities to engage in dispersed, undeveloped recreational activities that lead to a visitor’s ability to feel a part of nature.

### ***Supplemental values***

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<sup>1</sup> See also Bureau of Land Management Manual (BLM) 6310.06(C)(2)(c)(i)(1) (“Only consider the impacts of sights and sounds from outside the inventory area on the opportunity for solitude if these impacts are pervasive and omnipresent.”).

We support the examples of supplemental values provided in the draft evaluation process paper. However, it is important that the final paper make clear that the list of examples is not comprehensive. Simply adding the phrase “examples include but are not limited to” prior to the bullet points would provide adequate clarification.

**Conclusion**

Thank you for the opportunity to provide input on the draft inventory maps and draft evaluation process paper. Overall, we found these products to be well done and appreciate the thought and effort that clearly went into them. By addressing the issues identified above, we believe the final inventory maps and evaluation process paper will be of exceptional quality and entirely consistent with the Chapter 70 directives. We look forward to further discussion and engagement in the Chapter 70 process. Please contact Alison Flint or Nathan Newcomer with any questions.

## APPENDIX A

### CONGRESSIONAL GUIDANCE ON OUTSIDE SIGHTS AND SOUNDS<sup>1</sup> WRITTEN BY DOUG SCOTT, 2006

This idea of outside sights and sounds as a criterion for whether each acre qualified as wilderness has no basis in the Wilderness Act, its legislative history, or how Congress has subsequently applied it.

First, the word “sight” does not appear in the Act. The word “sound” appears once, in a technical provision having to do with mining claims, and not in the sense of auditory phenomenon.

Second, were this idea to be taken seriously, it would disqualify, for example, almost all of the 228,480 acres of wilderness Congress designated in Mount Rainier National Park in 1988, leaving just the deep canyons, crevasses, and summit crater as qualified for wilderness—for these are the only portions of the park from which clearcuts and towns outside the park, and the roads and facilities within the park, are not visible.

#### **The Legislative Intent of the Authors of the Wilderness Act Definition.**

In fact, Congress was very explicit in rejecting the notion of outside influences disqualifying land as wilderness. Looking back at the Act’s section 2(c) definition, wilderness is among other things “an area of undeveloped Federal land retaining its primeval character and influence.” Note that these words, and the others in this subsection, all pertain to the *entity* of wilderness itself, not its surroundings. That is no accident, but the conscious intent of the senator who wrote those words.

In early versions of the bill that became the Wilderness Act, the wording of this phrase was slightly different: “areas . . . retaining their primeval *environment* and influence.” In July 1960, Senator James Murray (D-MT), introduced a new revision of the Wilderness Bill he had earlier introduced.<sup>2</sup> Senator Murray was the lead sponsor and the chairman of the committee handling the bill; his stated intent is definitive legislative history. In introducing his revised version of his own bill, he carefully explained to the Senate a key word change:

In the opening sentence of the bill change the word “environment” (line 9) to “character” and delete the words “recreational, scenic, scientific, educational, conservation, and historical.”

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<sup>1</sup> This section was written by Doug Scott, a wilderness historian with the Campaign for America’s Wilderness, in comments to the Green Mountain National Forest on their proposed forest plan revision.

<sup>2</sup> S. 3809, 86<sup>th</sup> Congress. Throughout its eight-year consideration by Congress, the legislation was commonly referred to as “the Wilderness Bill.” Sen. Murray’s explanations are prime documentation of the congressional intent behind the words of the final Act.

Explanation: These are amendments pending before the Interior Committee. *The word “character” is substituted because “environment” might be taken to mean the surroundings of the wilderness rather than the wilderness entity.*<sup>3</sup>

As Senator Murray’s explanation illustrates, the authors of the Wilderness Act took great care to document precise guidance on their legislative intent in choosing the words in the law. They did not want the *qualification* of land that might be designated as wilderness to be decided on the basis of the surrounding **environment** and any impacts from outside the boundary, even immediately outside the boundary. Rather, they specified that the test was the **character** of the wilderness entity itself.

Later, when some agencies misapplied this aspect of the Wilderness Act to assert that outside sights and sounds led them to judge lands not qualified for wilderness, Senator Frank Church (D-ID), who had been the floor manager when the Senate debated and passed the Act, reminded them of Sen. Murray’s definitive explanation at a Senate hearing:

The Wilderness Act calls for the designation of suitable wild lands which are of wilderness “character.” This term “wilderness character” applies only to the immediate land involved itself, not to influences upon it from outside areas. This point was specified precisely in an early amendment to the wilderness bill... What [Sen. Murray’s 1960] amendment made clear is that the suitability of *each acre of possible wilderness* is to be ascertained on the basis of that wilderness entity, not on the basis of insubstantial outside influences. *Sights and sounds from outside the boundary do not invalidate a wilderness designation or make threshold exclusions necessary, as a matter of law.*<sup>4</sup>

Despite Senator Church’s clarification, use of the erroneous sights and sounds criterion recurred. The issue came to a head during congressional action on the Endangered American Wilderness Act of 1978, sponsored by Representative Morris K. Udall (D-AZ) and Senator Church.<sup>5</sup> Like Church, Udall had been involved in the enactment of the Wilderness Act [both were at President Lyndon Johnson’s side as he signed the Act] and was, in 1978, chairman of the House committee handling all wilderness legislation. In its formal report to the House of Representatives explaining the 1978 bill, Udall’s Committee on Interior and Insular Affairs discussed the Forest Service’s renewed use of the sights and sounds concept:

Testimony presented during nine days of Subcommittee hearings on H.R. 3454 repeated allegations that the Forest Service has been unduly restrictive in setting wilderness evaluation criteria which relied solely on the most stringent possible interpretation of the definition section (section 2(c)) of the Wilderness Act.

... many areas, including the Lone Peak and Sandia Mountain proposals<sup>6</sup> in H.R. 3454, received lower wilderness quality ratings because the Forest Service

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<sup>3</sup> Ibid., emphasis added.

<sup>4</sup> *Preservation of Wilderness Areas*, Hearings before the Subcommittee on Public Lands, Committee on Interior and Insular Affairs, U.S. Senate, on S. 2453 and Related Wilderness Bills, May 5, 1972, page 59, emphasis added.

<sup>5</sup> Public Law 95-237; February 24, 1978.

<sup>6</sup> Areas subsequently designated as wilderness in the 1978 law.

implemented a “sights and sounds” doctrine which subtracted points in areas where the sights and sounds of nearby cities (often many miles away) could be perceived from anywhere within the area. This eliminated many areas near population centers and has denied a potential nearby high quality wilderness experience to many metropolitan residents, and is inconsistent with Congress[‘s] goal of creating parks and locating wilderness areas in close proximity to population centers. The committee is therefore in emphatic support of the Administration’s decision to immediately discontinue this “sights and sounds” doctrine.<sup>7</sup>

During Senate hearings on the Endangered American Wilderness Act, Dr. M. Rupert Cutler, the Assistant Secretary of Agriculture, assured the Senator Pete Domenici (R-NM), who raised the same concern about agency views on the Sandia Mountain Wilderness proposal, that in relation to that area and all wilderness areas:

there is no reference in the Wilderness Act to criteria for wilderness that includes such things as the sights, sounds, and smells of civilization which is a set of criteria which has been misapplied to wilderness areas.<sup>8</sup>

Other examples abound. In an earlier case, the National Park Service proposed to exclude a large expanse of the Lava Beds National Monument, California, from wilderness designation because from throughout that roadless land one could see, in the distance, “the rectilinear land forms of agriculture” (e.g. cultivated hay fields). In 1972 Congress rejected that concept and designated the entire area as wilderness.<sup>9</sup> Similarly, a portion of the wilderness boundary within Joshua Tree National Monument,<sup>10</sup> California, originally designated in 1976, abuts a maintenance area. The Senate Interior Committee explained:

A boundary adjustment in the Indian Cove area is designed to exclude the existing maintenance area from the wilderness, but *the wilderness line is located on the very edge of the maintenance area* on its east and north sides.<sup>11</sup>

Congress brings wilderness boundaries to the edge of human development precisely in order to best protect the maximum area of wildlands by statute. The boundary of the Pusch Ridge Wilderness, as designated in 1978, is instructive. This area reaches right to the city limits of Tucson, Arizona. One glance at the boundary map makes it clear that sights and sounds is not used as a wilderness criterion by Congress.

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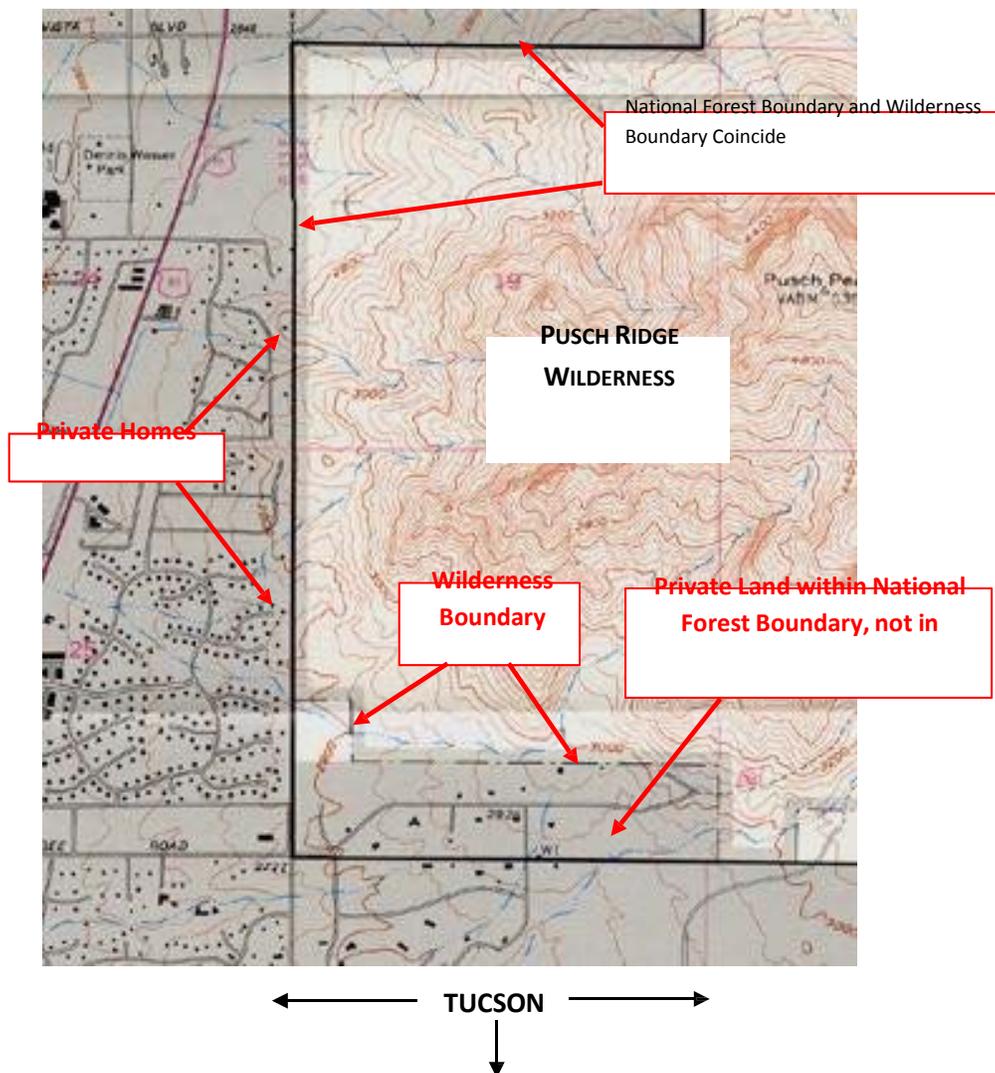
<sup>7</sup> House Report 95-540, 95<sup>th</sup> Congress, July 27, 1977, page 5, emphasis added.

<sup>8</sup> *Endangered American Wilderness Act of 1977*, Hearings before the Subcommittee on Parks and Recreation of the Committee on Energy and Natural Resources, United States Senate on S. 1180, September 19 & 20, 1977, Publication No. 95-88, Committee on Energy and Natural Resources, page 41.

<sup>9</sup> Public Law 92-493, 86 Stat. 811.

<sup>10</sup> Now Joshua Tree National Park. The initial wilderness was designated by Public Law 94-567; 90 Stat. 2693.

<sup>11</sup> *Wilderness Designations with Units of the National Park System*, Senate Report 94-1357, September 29, 1976, page 6, emphasis added.



There is a danger that the use of arbitrary criteria, or criteria not following the Wilderness Act and the precedents of the Congress, could unfairly constrain public review by misleading the public as to what lands can or cannot be recommended to Congress as wilderness.

The topics of perceived solitude (or lack thereof) and outside sights and sounds have had a particular history of inappropriate use as the basis for assertions as to whether a particular area, or portion of an area, can qualify for congressional designation. Congress has repeatedly had to correct those who have misused these as wilderness criteria. Such misuse can easily undermine the fairness of agency evaluations in such processes as inventorying roadless areas, an in evaluation of wilderness potential in BLM Resource Management Plans or revisions of National Forest Plans. Beyond discouraging the public from appreciating that wilderness protection is indeed possible for such lands, the misuse of these criteria could result in inadvertently preempting the prerogatives of the Congress.



# The world's largest wilderness protection network after 50 years: An assessment of ecological system representation in the U.S. National Wilderness Preservation System



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## ABSTRACT

Protected areas, such as wilderness, form the foundation of most strategies to conserve biological diversity. However, the success of protected areas in achieving conservation goals depends partly on how well ecological diversity is represented in a network of designated lands. We examined how well the world's largest highly-protected conservation network—the U.S. National Wilderness Preservation System (NWPS)—currently represents ecological systems found on federal lands in the contiguous United States and how ecological system representation has accumulated over the 50-year tenure of the Wilderness Act (passed in 1964 and giving the U.S. Congress authority to establish wilderness areas). Although the total area of NWPS has risen fairly steadily since 1964, the diversity of ecological systems accumulated in wilderness areas (436 ecological systems) reached an asymptote 30 years ago that is well below the total pool of ecological systems available (553) on federal lands. Thus, NWPS currently under-represents ecological system diversity. Additionally, only 113 ecological systems are represented at more than 20% of federal land area. As the designation of new wilderness areas becomes more difficult, it is important to increase the ecological representation of those areas to achieve greater protection of biological diversity. Over the next 50 years of the Wilderness Act, federal land-management agencies and the U.S. Congress could increase the ecological diversity of wilderness areas by prioritizing under-represented ecological systems in new wilderness legislation.

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## 1. Introduction

Wilderness and other protected areas are the cornerstones of most regional, national, and international efforts to conserve biological diversity and sustain ecological processes of natural ecosystems (Bertzky et al., 2012). Protected areas are effective in reducing the loss, degradation, and fragmentation of natural habitats (Bruner et al., 2001; Naughton-Treves et al., 2005) and slowing the rate of extinction of threatened species that occur therein (Butchart et al., 2012). Recognizing the importance of protected areas for biodiversity conservation, the Convention on Biological Diversity (CBD) calls for at least 17% of the world's terrestrial areas to be conserved by 2020 (Woodley et al., 2012).

Protected areas can best achieve biodiversity goals if they are located in the right places—that is, they are representative of all ecosystems. The “representation” approach to conservation assumes that for protected areas to conserve genetic, species, and community diversity—as well as the structure, function, and evolutionary potential of natural systems—they must encompass the full variety of ecosystem types across their geographic range (Olson and Dinerstein, 1998; Margules and Pressey, 2000). Ecosystems are typically classified hierarchically by the principal vegetation communities that are found there. Protection of vegetation communities will help to protect the species that rely on them and the natural ecological processes that are characteristic of those communities (Rodrigues et al., 2004; Bunce et al., 2013). CBD has developed several indicators to evaluate the ecological representativeness of the global protected areas network, one of which is the percentage of ecosystem types (or vegetation communities) protected by 2020 (Woodley et al., 2012).

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As we commemorate the 50th anniversary of The Wilderness Act (signed into law on September 3, 1964), it is important to take inventory of the lands that have been designated as wilderness and evaluate how well the U.S. National Wilderness Preservation System (NWPS) represents the ecological diversity of America's publicly-owned federal lands—lands from which wilderness areas are exclusively designated. NWPS is a collection of federally-managed lands designated by Congress as 'wilderness areas'—"where the earth and its community are untrammelled by man, where man himself is a visitor who does not remain"—that are "protected and managed so as to preserve... natural conditions" ([The Wilderness Act, 1964](#)).

Why is it important to evaluate ecological diversity of the wilderness system in isolation from other protected areas in the U.S.? There are three principal reasons.

First, the laws, regulations, management, and other circumstances surrounding the wilderness preservation system make it especially valuable for conservation of biological diversity. Wilderness has an exceptionally high level of protection from human-caused disturbance. Wilderness areas are free of many anthropogenic stressors, including road-building, logging, mining, oil and gas drilling, hydraulic fracturing, solar and wind energy development, agriculture, irrigation, fuel-powered tools, off-road motor-vehicles, snowmobiles, non-motorized mechanical transport, developed tourism facilities, and permanent structures ([The Wilderness Act, 1964](#)). Most other "protected" areas allow a greater degree of human use (e.g., gift shops, hotels, paved roads, and skating rinks in national parks), resource extraction (e.g., copper mining in national forests), or land conversion (e.g., cultivated cornfields in national wildlife refuges) that may negatively affect species that occur there. In recognition of their high degree of protection, the U.S. Geological Survey assigns wilderness areas a default GAP Status of 1—the highest rank ([USGS, 2012](#)). In addition, the International Union for Conservation of Nature (IUCN) classifies U.S. wilderness as category 1b—which, along with 1a, is the highest classification-level of protection ([IUCN & UNEP, 2014](#)). The primary objective of 1b areas (i.e., "wilderness areas") is "to protect the long-term ecological integrity of natural areas that are undisturbed by significant human activity, free of modern infrastructure, and where natural forces and processes predominate, so that current and future generations have the opportunity to experience such areas" ([Dudley, 2008](#)).

Although there are a few other types of protected areas in the U.S. that are classified as both GAP 1 and IUCN 1 (e.g., Research Natural Areas), they are generally small and often located inside of wilderness area boundaries. In contrast, wilderness areas, with minor exceptions such as islands, are a minimum of 2023 ha (5000 acres) each, and most are much larger ([Wilderness Institute, 2014](#)). The largest single wilderness unit in the contiguous U.S. (Death Valley Wilderness, California and Nevada) is more than 1.2 million ha. The large size of wilderness areas allows many of them to sustain large-scale natural processes (such as wildfire) and provide large, un-fragmented core areas which are essential for animal migrations, top-level predator-prey relationships, and habitat for wide-ranging, low-density animal species. The U.S. National Wilderness Preservation System is the largest national system of category-one protected lands in the world ([IUCN & UNEP, 2014](#)). Nearly 1 in 5 ha (18%) of all category-one protected areas and over one third (37%) of category-1b areas worldwide are in NWPS ([IUCN & UNEP, 2014](#)). Because NWPS is the world's largest category-one protected area system ([IUCN & UNEP, 2014](#)), the degree of ecological representation of these areas is globally important.

Second, the NWPS operates from the original law passed 50 years ago, which provides continual opportunities for expansion in a systematic way. Every U.S. Congress since 1964 has considered bills to designate additional areas to the system ([Wilderness](#)

[Institute, 2014](#)), and all four federal land-management agencies are required by law to evaluate the need for new wilderness areas during their land and resource management planning processes. In contrast, there is no systematic, consistent, national-scale, legally-mandated process for creating new wildlife refuges, national parks, or national monuments.

Third, there exists an inventory of potentially suitable federal lands—roadless lands possessing wilderness characteristics—that are eligible for wilderness designation ([The Wilderness Act, 1964](#)). This type of standard process does not exist for other protected areas. Knowing which ecological systems are currently well-represented and which are under-represented in wilderness allows us to rank each potential new wilderness area based on how much it would increase ecological representation within the wilderness system. Representation analysis of the wilderness system, therefore, has real and practical applications for land managers and conservation organizations.

The wilderness system in the U.S. is uniquely managed, large, highly protected, and expandable in a systematic way. Therefore, there is great value in assessing ecological representation in the wilderness system by itself, in addition to assessing the entire protected area network.

We are building upon previous studies of ecological representation. Sixteen years ago, [Loomis and Echohawk \(1999\)](#) examined high-level vegetation communities' representation in wilderness designations—as a proportion of all lands, public and private—at the scale of [Bailey's \(1995\)](#) province-level ecoregional boundaries. Loomis' and Echohawk's study, in addition to being out of date, has two major limitations.

First, it examined representation of ecoregions at the province-level scale, which are too large to be helpful in prioritizing where to designate new wilderness areas (because those decisions are generally made at smaller scales, e.g., U.S. Congressional districts or national forests) and too broad to ensure that vegetation types which provide habitat for particular threatened, rare, or sensitive species are protected at a scale that is relevant to those species. Biological diversity is best associated with ecological system classification, rather than biomes or realms ([Olson et al., 2001](#)), which reflect large-scale patterns of climate and geography, but do not reflect species-level diversity. Second, their study examined ecological representation in wilderness only as a proportion of *all* lands in the U.S., which does little to help us understand how designating and managing *federal* lands will most efficiently and effectively increase under-represented vegetation classes. For example, knowing that tallgrass prairies are under-represented in NWPS does not help in prioritizing where to designate future wilderness areas, as virtually no wild tallgrass prairie lands are in federal public ownership, and private or state lands are not eligible for national wilderness designation.

One impediment that once precluded a nationwide ecological representation approach to wilderness designation and management in the contiguous 48 United States has recently been overcome with the availability of national-level, consistent, fine-scale data for vegetation communities, classified at multiple hierarchical levels ([Aycrigg et al., 2013](#)). The finest scale at which vegetation community data are available and consistent across the contiguous U.S. is at the level of "ecological system"—which is the term we use when referring to our analysis of ecological representation of vegetation communities. We examined, for the contiguous 48 United States (hereafter, simply, "United States"), which terrestrial ecological systems are represented in NWPS in relation to terrestrial ecological systems found on federal lands ([Figs. S1 and S2](#)). Specifically, we asked the following questions:

- (1) For each ecological system in the United States, what percent of federal land area is in the wilderness system?

- (2) What is the diversity of ecological systems currently in the wilderness system compared to the diversity of federal lands and to the diversity of all U.S. lands?
- (3) How has total area and diversity of ecological systems in wilderness accumulated over the past 50 years?
- (4) What is the relationship between rarity of ecological systems and how well they are represented in wilderness?

## 2. Materials and methods

To delineate ecological systems and their boundaries, we used U.S. Geological Survey Gap Analysis Program (GAP) national land-cover data version 2 (USGS, 2011), which provides seamless, detailed (30 m resolution; 1 ha minimum mapping unit) information on vegetation communities and land use patterns of the contiguous United States. GAP land-cover data combines data from previous GAP projects in the Southwest, Southeast, and Northwest United States, recently updated GAP California data, and data from the LANDFIRE project (for the Midwest and the Northeast). These national land-cover data were based on consistent satellite imagery (acquired between 1999 and 2001), digital elevation model derived datasets, and a common classification system to model natural and semi-natural vegetation. The land-cover data contain several nested hierarchical levels of vegetation community classifications which can be “cross-walked” to the six highest levels of the National Vegetation Classification System (NVCS, 2008)—the foundation of the most detailed, consistent map of vegetative associations available for the U.S.

We analyzed ecological representation in wilderness at the 6th level (the finest scale at which consistent, spatially-explicit GAP land-cover data are available) of the NVCS, which is hierarchically ordered as follows: 1. Class; 2. Subclass; 3. Formation; 4. Division; 5. Macrogroup; 6. Group (a.k.a. “Ecological System” in GAP terminology); 7. Alliance; and 8. Association.

We use the GAP terminology—“ecological system”—throughout this paper. The United States contains 576 ecological systems, 8 of which are highly-human-modified (we refer to them as “developed” in the main text): developed, high intensity; developed, medium intensity; developed, low intensity; developed, open space; cultivated cropland; pasture/hay; orchards, vineyards, and other high-structure agriculture; quarries, mines, gravel pits, and oil wells. Another 3 ecological systems are classified as “open water”: fresh; brackish/salt; aquaculture. For all analyses, we focused only on the 565 non-developed, non-open-water classes of ecological systems.

We obtained spatial data on the boundaries of the National Wilderness Preservation System from wilderness.net (Wilderness Institute, 2014), which maintains the most up-to-date spatial data on wilderness areas. To map federal land area, we used the U.S. Protected Areas Database (PAD-US) version 1.3 (USGS, 2012), which is a geodatabase of the national inventory of terrestrial and marine protected areas that are dedicated to the preservation of biological diversity and to other natural, recreation, and cultural uses, managed for these purposes through legal or other effective means. The geodatabase includes geographic boundaries, land ownership, land management, management designation, parcel name, area, and protection category.

*Questions 1 and 2:* We overlaid wilderness and all federal lands with ecological systems in a Geographic Information System (ArcGIS 10.2) to calculate the total area of each ecological system within wilderness and federal lands. Because wilderness areas are designated exclusively from federal lands, we calculated “ecological system representation” in wilderness using Eq. (1).

$$\frac{\text{area of the ecological system in NWPS}}{\text{area of the ecological system on federal lands}} \times 100 \quad (1)$$

For example, when we say “boreal aspen-birch forest has 19% representation in wilderness”, we mean that 19% of all federal land of that ecological system type is protected as wilderness in NWPS. After calculating ecological system representation, we mapped each ecological system according to its level of representation across all lands, federal and non-federal (Fig. 1A), and across federal lands only (Fig. 1B). We did the former because we believe it is interesting to know where well-represented and under-represented ecosystems exists across the entire U.S., regardless of whether they are on federal land, so that we are able to see broad patterns of geographic distribution of those ecosystem types. We also provide a map of ecosystem representation on federal lands only—to show how well ecosystems that occur on federal lands have been represented in the wilderness system and to isolate those areas that are eligible to be added to the wilderness system and which, if added, would increase ecological representation.

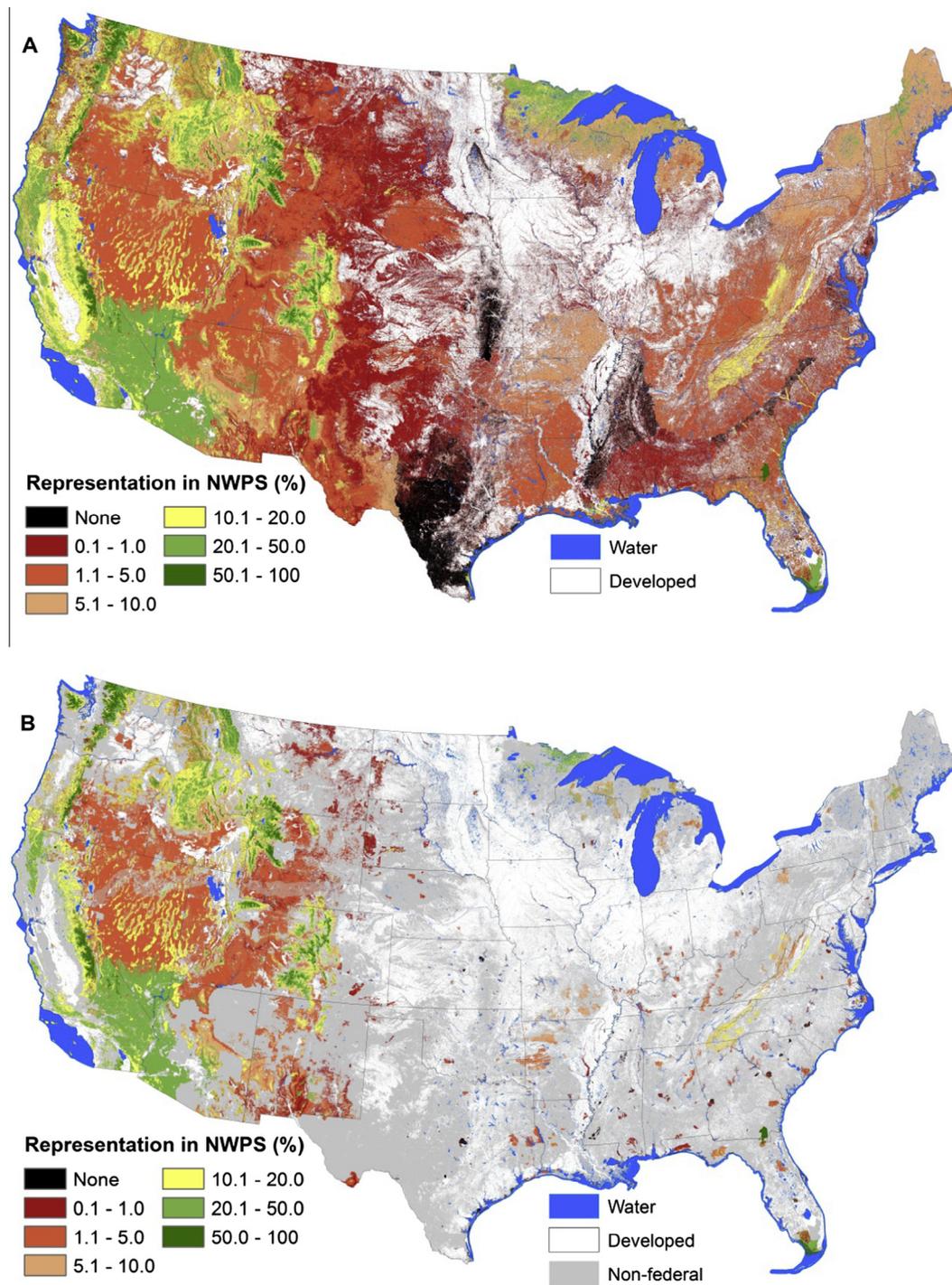
*Question 3:* We used the “specaccum” (i.e., species accumulation) function in the vegan package of R v. 3.0.2 (Oksanen et al., 2013; R Core Team, 2014) to calculate ecological system accumulation curves within wilderness since 1964. We investigated accumulation of new ecological systems in wilderness based on presence (i.e., an ecological system is accumulated if at least 1 ha of its area was represented in a wilderness area), as well as accumulation of ecological systems after achieving a 5% or 20% ecological system representation threshold. We chose those thresholds to evaluate “representation” over a wide range of values.

*Question 4:* We plotted and regressed the percent representation of each ecological system against the log of total area occurring on federal land to investigate whether commonness of ecological systems is related to their level of representation in wilderness. To map patterns of total area and representation simultaneously, we also classified ecological systems as “rare” (<100,000 ha on federal land) or “common” (>100,000 ha on federal land) and “well-represented” (>20% in NWPS) or “under-represented” (<20% in NWPS). We expected that common ecological systems on federal land are more likely than rare ecological systems to be well represented in NWPS. We mapped the results across all lands, federal and non-federal, and across federal lands only.

## 3. Results

The National Wilderness Preservation System (20,993,174 ha) encompasses 12.6% of federal land area and 2.6% of all land area (including inland water-bodies) in the U.S. Wilderness is designated on lands managed by the U.S. Forest Service (12,377,445 ha; 59% of all wilderness hectares), the National Park Service (4,098,734 ha; 20%), the Bureau of Land Management (BLM; 3,496,208 ha; 17%), and the U.S. Fish and Wildlife Service (789,706 ha; 4%). A comparatively small number of wilderness hectares are classified as “non-federal” lands, as these are private in-holdings that have not yet been acquired by the managing agencies. The proportion of each public land type designated as wilderness varies greatly: approximately 40% of national park lands are designated wilderness, 18% of national forest lands, 16% of national wildlife refuge lands, and 5% of BLM lands (Fig. S1).

In the 50 years of the Wilderness Act, 690 wilderness units have been designated, representing 436 ecological systems. In comparison, the U.S. contains 565 ecological systems (Fig. S2; Table S1), 553 of which are found on federal lands, leaving 117 ecological systems (21.2%) unrepresented in NWPS. Moreover, some ecological systems are only nominally represented in wilderness. Therefore, we calculated the number of ecological systems with more than 5% of federal land area in wilderness and more than 20% of federal



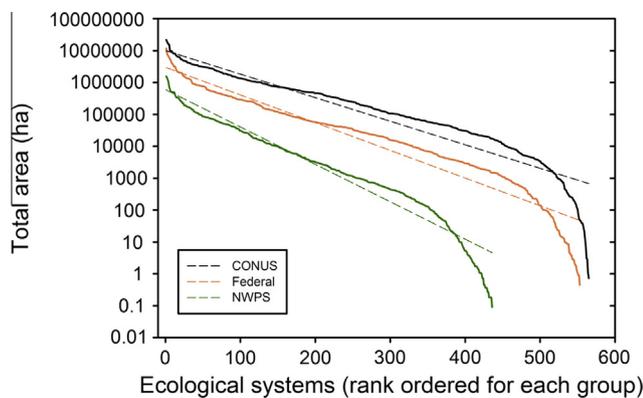
**Fig. 1.** The percent of federal land area in the National Wilderness Preservation System (NWPS) for each of 565 ecological systems (after removing developed land and open water) mapped across all federal and non-federal lands (A) and mapped across federal lands only (B).

land area in wilderness—to evaluate a wide range of representation thresholds. At the 5% and 20% representation thresholds, 244 and 113 ecological systems, respectively, occur in wilderness (Fig. S3). The proportion of area designated wilderness within each ecological system ranges from 0% to 100% of federal land area (Fig. 1A and B). Therefore, NWPS does not include the full richness of ecological systems available on federal land.

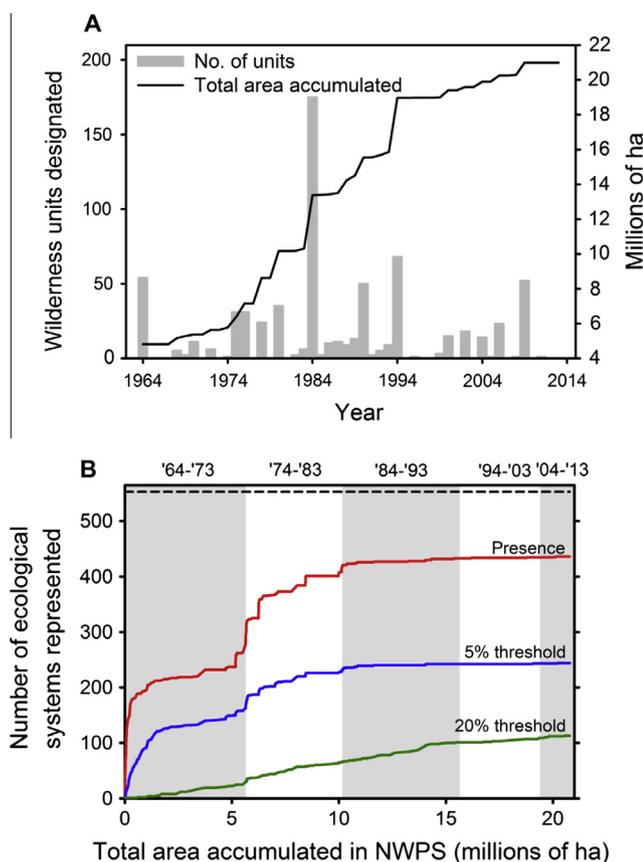
Total area within the U.S., on federal land, and in wilderness are characterized by a few common and widely distributed ecological systems, a pattern shown in the negative exponential distributions of rank abundance curves (Fig. 2). However, ecological systems in

wilderness are more strongly dominated by a few ecological systems (slope of exponential decay function =  $-0.027$ ,  $R^2 = 0.95$ ) compared to ecological systems found on federal lands (slope =  $-0.020$ ,  $R^2 = 0.93$ ) and in the U.S. (slope =  $-0.017$ ,  $R^2 = 0.90$ ). Therefore, ecological system evenness in NWPS is lower compared to evenness of federal lands and of all U.S. lands.

Total area of NWPS has increased since 1964, albeit at a declining rate since 1995 (Fig. 3A). Half of the area currently in wilderness was accumulated by 1984, and 95% by 2006. New ecological systems represented in wilderness accumulated steeply for the first 20 years following passage of the Wilderness Act. However,



**Fig. 2.** Rank order abundance curves (i.e., “Whittaker” [1965] plots) of ecological system diversity within the contiguous United States (CONUS), on federal land, and within the National Wilderness Preservation System (NWPS). The slopes of the exponential decay functions (dashed lines) estimate differences in ecological system evenness. Total number of ecological systems for each group (U.S., federal, NWPS) represents total richness.



**Fig. 3.** Number of wilderness units and total area accumulated in the National Wilderness Preservation System (NWPS) over the 50-year tenure of the Wilderness Act (A). The number of unique ecological systems represented in NWPS as a function of total area accumulated (B). The red line indicates nominal presence of an ecological system in NWPS. The blue and green lines represent ecological systems with greater than 5% and 20%, respectively, of federal land in wilderness. The top of panel B represents the total number of ecological system in the United States, and the dashed line represents the total number of ecological systems on federal land. Decades starting with the 1964 passage of the Wilderness Act are shown as grey and white shading.

rate of accumulation of ecological systems in wilderness declined over the last 30 years. Specifically, half of the total ecological system richness currently represented in wilderness (as measured

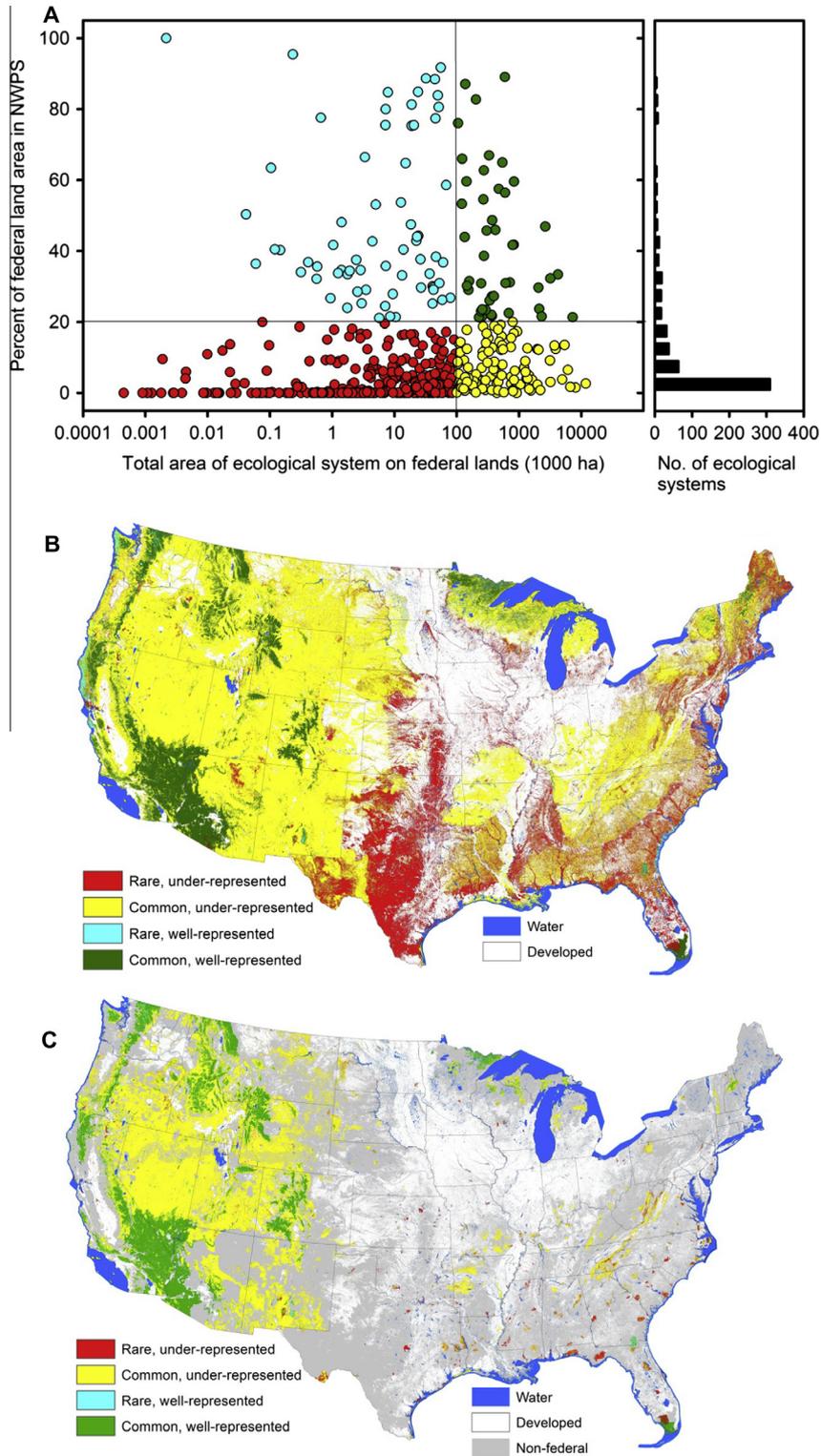
by both presence and the 5% representation threshold) was accumulated by the first year of the Wilderness Act (1964), and 95% of ecological system richness was accumulated by 1984 (Fig. 3B). Even at the 20% representation threshold, half of the total richness was accumulated by 1978, and 95% was accumulated by 1994. Growth in accumulated area in wilderness has greatly outpaced growth in total ecological system richness. In fact, in the past 15 years 2 million hectares were added to the wilderness system, but have resulted in the addition of only 1 new ecological system.

We found no relationship between the area of an ecological system occurring on federal land and the proportion of its federal land area represented in wilderness ( $p = 0.93$ ; Fig. 4A). In other words, rare ecological systems on federal land are as likely to be represented in wilderness as common ecological systems.

**4. Discussion**

Our results clearly show that the National Wilderness Preservation System under-represents the full ecological system diversity occurring on federal lands. Neither the U.S. Congress nor federal land-management agencies have explicitly addressed the representation of ecological system diversity within NWPS, nor has there been any systematic conservation planning to achieve conservation goals of ecological representation (Margules and Pressey, 2000). U.S. wilderness areas have historically been designated through a mix of political will and public desire for recreation, solitude, and scenery, albeit with a growing recognition of their value in conserving ecological integrity (Cordell et al., 2005). Although ecological representation and conservation of biological diversity are not specifically addressed in the Wilderness Act, they have become important benefits of the system, as they have for all protected areas. This situation is not unique to wilderness. Few protected areas in the U.S. were established to conserve biological diversity. For example, the National Forest System’s Organic Act, which provided the statutory basis for management of forest reserves, stated that the intention of the forest reservations is to “improve and protect the forest within the reservation, . . .securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States” (Forest Service Organic Administration Act, 1897). National parks had a somewhat clearer mandate to conserve species, as the fundamental purpose of parks was “to conserve the scenery and natural and historic objects and the wild life therein and to provide for the enjoyment in the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (National Park Service Organic Act, 1916). Plant and animal species, however, were secondary concerns, as the Secretary of Interior was provided discretion for “the destruction of such animals and of such plant life as may be detrimental to the use of any of said parks” (National Park Service Organic Act, 1916). Perhaps more important than the original goals of protected areas is the degree of protection from stressors that they are afforded by law today. One reason why it is important to assess the ecological representation of wilderness areas in their own right is the high level of protection that occurs therein.

We do not, however, expect wilderness areas to provide for the protection of all biological diversity in the U.S. or even all the species found on federal lands. Other protected areas, in addition to wilderness, must contribute to achieving these goals. It is valuable, nevertheless, to assess the level of ecological representation in the wilderness system to understand how that representation may be increased to further protect biological diversity, for the wilderness system is unique and provides a type of protection from human stressors that other protected areas may not.



**Fig. 4.** The relationship between the area of ecological systems occurring on federal land and the proportion of federal land area represented in the National Wilderness Preservation System (NWPS) and our classification of ecological systems as “rare” or “common” and “well-represented” or “under-represented” (A). The histogram on the right shows the number of ecological systems in 20 bins of percent federal land area in NWPS. This classification is mapped for all non-developed, terrestrial ecological systems across all federal and non-federal lands (B) and mapped across federal lands only (C). Note: one example of a rare, well-represented ecological system is the Okefenokee Swamp on the Florida–Georgia border.

Wilderness areas are arguably the most important areas in the United States in which to achieve ecological system representation. Due to their strict rules of use and protection (Dawson and Hendee, 2009), wilderness areas have been increasingly recognized for their

importance in conserving biological diversity and fundamental physical and biological processes, including large-scale disturbance regimes (Hobbs et al., 2010). Moreover, a network of connected wilderness and other protected areas that represent the

full expression of nature's diverse ecological systems can also serve as "untreated control units" for experimental treatments on other lands where novel methods of restoration and management will be increasingly implemented to mitigate the impacts of climate change and other human-caused stressors (Magness et al., 2011).

This is the first study to assess the wilderness system at the ecological system level, including a comparison of ecological diversity to federal lands and all U.S. lands, an assessment of accumulation of representation over time, and an investigation of the relationship between rarity of ecological system and protection in wilderness.

A recent study (Aycrigg et al., 2013) evaluated representation of finer-scale ecological systems in the comprehensive "protected areas" network of the contiguous United States—including, but not limited to, wilderness areas—at the national and ecoregional scales. Protected areas throughout the world are classified by the IUCN by their primary management objectives, with categories 1a and 1b having the most natural conditions and the lowest degree of environmental modification (Dudley, 2008). Areas outside of category one, however, may be managed for multiple uses, including extraction of natural resources, concentrated recreation and tourism, facilities development, and conversion of natural habitat types to anthropogenic types. Representation of ecological system types in these areas may not provide the protection needed to be considered true biodiversity reserves. Therefore, we are expanding upon this work so that managers and conservation biologists can understand how best to increase ecological representation within the wilderness system itself. Fully representing ecological diversity in NWPS and other protected areas has not been achieved, partially because the assessment conducted here has only recently been possible with the availability of high-resolution, universal coverage of spatial data linked to a national ecological system classification (Aycrigg et al., 2013).

The opportunity to designate additional wilderness areas is substantial and real. In contrast, designation of new large-landscape national parks has slowed in recent decades and has no explicit means of growth through federal land-use planning. New national monument proclamations by the executive branch, although relatively common, do not consistently meet the management standards of strict ecological reserves. The Wilderness Act provides a means for the U.S. Congress to continually designate additional wilderness areas from federal public lands—primarily in un-roaded and sparsely-roaded areas. The diversity of ecological systems in NWPS, therefore, can increase if efforts are made to prioritize designations by ecological criteria. As shown in Fig. 4B and C, many common ecological systems remain under-represented in NWPS, providing ample opportunity to increase ecological diversity. Alpine, high montane, and boreal forest vegetation communities are well-represented in wilderness, as are low-elevation "warm" semi-desert areas with sparse vegetation (Table 1). The relatively rare wet-tropical ecological systems are also well-represented, largely due to the abundance of south Florida wilderness. Temperate forests, temperate and boreal grasslands and shrublands, and semi-desert scrub and grasslands (especially in "cool" deserts) are under-represented in wilderness, yet many millions of hectares of these subclasses are found on federal land.

Human population growth and subsequent pressure for development and extraction of natural resources will make wilderness areas increasingly vital to conserve biological diversity. If we intend to take advantage of the highly-protective nature of wilderness areas to conserve biological diversity, future recommendations for additions to the system should strongly consider how under-represented ecological systems could be prioritized in new wilderness bills. As the designation of new protected areas becomes increasingly difficult, it is important to achieve maximum ecological system diversity for every new area designated.

**Table 1**

Ecological subclasses of the National Vegetation Classification System (all open water and modified land combined into "other subclasses"), the proportion of federal land in the National Wilderness Preservation System (NWPS) for each subclass, the area of each subclass in wilderness, and the area of each subclass on all federal land [hectares are derived from spatial data].

National Vegetation Classification System (NVCS) Subclass	% in NWPS	Hectares in NWPS	Hectares on federal land
Cool Semi-Desert Scrub & Grassland	2.9	1,222,726	42,730,449
Tropical Dry Forest	3.8	1169	30,421
Other Subclasses (Open water, modified land, etc.)	6.5	611,951	9,397,380
Temperate & Boreal Shrubland & Grassland	10.4	1,489,897	14,346,766
Temperate Forest	14.8	10,050,644	67,817,892
Warm Semi-Desert Scrub & Grassland	16.0	3,068,431	19,211,918
Mediterranean, Temperate & Boreal Nonvascular & Sparse Vegetation	16.9	148,663	882,226
Mediterranean Scrub & Grassland	21.4	280,892	1,314,014
Boreal Forest	25.9	375,721	1,450,366
Semi-Desert Nonvascular & Sparse Vascular Vegetation	27.0	1,751,589	6,486,099
Barren	40.8	41,822	102,498
Tropical Shrubland, Grassland & Savanna	44.6	146,223	327,938
Tropical Moist Forest	45.1	123,752	274,565
Temperate & Boreal Alpine Vegetation	61.5	784,834	1,276,312
Polar & High Montane Nonvascular & Sparse Vegetation	72.9	892,641	1,224,276
All NVCS Subclasses	12.6	20,990,955	166,873,120

## 5. Role of the funding sources

All spatial data used are publicly available for no cost. The Wilderness Society and the United States Geological Survey Gap Analysis Program under research work order #G12AC20244 to The University of Idaho provided funding for staff time and did not influence study design, data collection, data analysis, data interpretation, writing of the report, or decisions on publication.

## Acknowledgement

We thank Anne Davidson and Jeff Lonaker at University of Idaho for their help and suggestions.

## Appendix A. Supplementary material

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.biocon.2015.02.024>.

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May 17, 2018

Mr. Scott Armentrout, Forest Supervisor  
Ms. Sam Staley, Forest Planner  
Grand Mesa, Uncompahgre, and Gunnison National Forests (GMUG)  
2250 South Main Street  
Deha, CO 81416  
Via Online GMUG Wilderness Comment Tool: <https://cara.ecosystem-management.org/PublicCommentinput?project=N P-1 81 0>

RE: Ouray County, Colorado, Comments on DRAFT: Evaluation of Wilderness Characteristics for Lands that may or may not be Suitable for Inclusion in the National Wilderness Preservation System #NP-181 0

Dear Mr. Armentrout, Ms. Staley, and GMUG Planning Team:

The Town of Mountain Village appreciates the opportunity to comment on the GMUG's Draft Evaluation of Wilderness Characteristics for Lands that may or may not be Suitable for Inclusion in the National Wilderness Preservation System. The Town of Ophir supports the recommendations submitted by Sheep Mountain Alliance and The Wilderness Society et. al. dated March 6<sup>th</sup>, 2018. In addition, we support the wilderness and special management recommendations submitted by Sheep Mountain Alliance and the Wilderness Society et. al. in November 2017. We believe that there is a need and an opportunity in the GMUG planning process to create and manage additional wilderness areas and other types of conservation designations.

The recommendations and proposed designations referenced are important because they protect a variety of values important to our community. Amongst others, these include ecosystem services that help maintain our air and water quality; habitat protection for the wildlife whom we share this landscape with; scenic values that are important for our livelihoods and tourism-based economy; recreational use; educational opportunities; and health and economic benefits. The areas under consideration possess high wilderness characteristics, high apparent naturalness, and high degrees of opportunities for solitude and primitive recreation.

They have been mapped through extensive community involvement and on-the-ground field work and they are based on the best available science and the requirements of the 2012 Forest Service Planning Rule. These landscape level recommendations will help us to enjoy a functional and wild National Forest long into the future, while respecting current and historic uses to mitigate user conflicts and strengthen the local economy.

We particularly ask that the GMUG staff consider lands that are included in an existing citizen-initiated proposal, such as the proposed San Juan Wilderness proposal. If lands are being contemplated for Wilderness designation they should be fully included in the GMUG Wilderness Inventory, as they have been extensively studied and vetted for more than a decade.

Finally, we ask that you consider the inventoried areas that retain an intact ecological system capable of natural restoration after timber, mining, or other human activity, rather than eliminating them outright from the inventory. Many of these places, when left alone, reach a state where the past activity is no longer “significantly noticeable” on the ground.

We thank you and the USFS leadership that created this Forest Planning process that allows for increased public participation and collaboration. We look forward to working with you on the next steps of the GMUG Forest Plan Revision.

Sincerely,

---

Laila Benitez, Mayor  
Town of Mountain Village



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Honorable Michael Bennet  
261 Russell Senate Office Building  
Washington, DC 20510  
c/o John Whitney [john\\_whitney@bennet.senate.gov](mailto:john_whitney@bennet.senate.gov)

May 17, 2018

Dear Senator Bennet:

The Town of Mountain Village would like to express its continued support for the San Juan Mountains Wilderness Bill. We commend you for introducing the bill, and ask that you endeavor to move it forward into law.

Mountain Village has long been a supporter of this bill, which we see as critical to securing our economic future and way of life. While we believe that the full extent of the areas outlined in the previous version of the bill represents lands worthy of protection, we accept and support the bill in its current form.

We have reluctantly accepted some of these changes, such as the boundary revision to accommodate potential mining activity in upper Mill Creek Basin, while applauding others, such as the creation of a mountain bike trail use zone in the Ophir Valley.

This zone represents an innovative solution to user-created trails in a proposed protected area. It was formulated with great foresight and we believe that if managed properly, it will reduce user conflict while maintaining existing use.

Thank you for your tireless efforts on behalf of our communities to protect this unique place. Please let us know if there is any way in which we may better facilitate the passage of the San Juan Bill into law.

Sincerely,

---

Laila Benitez, Mayor  
Town of Mountain Village



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May 17, 2018

Dear Senator Gardner/Congressman Tipton

The Town of Mountain Village would like to express its firm support for the San Juan Mountains Wilderness Bill.

Mountain Village has long been a supporter of this bill, which we see as critical to securing our economic future and way of life. While we believe that the full extent of the areas outlined in the previous version of the bill represents lands worthy of protection, we accept and support the bill in its current form.

We hope that our Members of Congress realize the reluctance with which we have accepted some of these changes, such as the boundary revision to accommodate potential mining activity in upper Mill Creek Basin, while being key collaborators on others, such as the creation of a mountain bike trail use zone in the Ophir Valley.

This zone represents an innovative solution to user-created trails in a proposed protected area. It was formulated with great foresight and we believe that if managed properly, it will reduce user conflict while maintaining existing use.

The San Juan Mountains Wilderness Bill is long overdue. This iconic landscape in our back yard needs to be protected once and for all. We ask you to work towards this goal alongside your colleagues in the Colorado Congressional Delegation.

Please let us know if there is any way in which we may better facilitate the passage of the San Juan Bill into law.

Sincerely,

---

Laila Benitez, Mayor  
Town of Mountain Village



## J. David Reed, P.C.

ATTORNEYS AT LAW

J. David Reed | James D. Mahoney | Bo James Nerlin | Sarah H. Abbott

MONTROSE • RIDGWAY • TELLURIDE

Agenda item 9

# Memo

To: Mayor and Council Members  
From: James Mahoney  
Date: May 10, 2018  
Re: Public Comment Policy Options

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### I. Background:

Over the years the Town Council has adopted through the Rules of Conduct of Public Meetings Policy, a public comment policy; however, the Town has never strictly followed the public comment policy or brought attention to such the existence of such a policy. In addition that policy does not address many of the items it could and should address.

Therefore, the Town Council directed our office to prepare an analysis of the options available to Town Council regarding adopting and implementing a public comment policy which are set forth below.

### II. Analysis:

- a. What agenda items does the Town have to allow public comment on and can/should the Town allow for public comment on more items than required by law?

The only agenda items for which public comment must be taken are those that are considered “Public Hearings”. The two primary types of Public Hearings are quasi-judicial hearings and legislative hearings.

Quasi-Judicial hearings are where the Council or DRB are acting as the role of decision maker on an application to the Town. Examples are rezoning applications, conditional use applications, liquor license applications, PUD applications and other similar application hearings. Legislative hearings are where the Council is acting in its rule making capacity. Examples are adopting new ordinances, changing existing ordinances (including the CDC) annexations and master plans.

Other than these two examples, there are many other agenda items that don't fall into either category. In fact, your typical agenda has many items that are not public hearings, which brings us to the question of whether or not you should allow for public comment on other types of items.

In conducting a survey of communities across Colorado with the assistance of the Colorado Municipal League most communities only allow for public comment on public hearing items not all agenda items. However, they all have a length agenda item for public comment. The Mountain Village has a 5 minute item for public comment on "non-agenda" items, which is rarely used, whereas, other jurisdictions had at least a 45 minute public comment agenda item, where constituents are allowed to comment on all things other than public hearing items.

The idea of one public comment period rather than public comment on every item does have merit as it is an efficient way to receive public comment in one session on all items that are not public hearings as well as other non-agenda items. However, this would be a large change. The other option here would be to continue allowing comment on all action items regardless of whether they are public hearing action items or not.

b. What restrictions can and are placed upon public comment at Town Council and other Town meetings?

The basic rule is that any restrictions must be time, place and manner restrictions, which must be content neutral (i.e. only proponents or conversely only opponents can speak would be an unacceptable restriction). Restrictions on the time allowed for each individual speaker are the most common restrictions imposed by all jurisdictions that I have researched and so long as they are uniformly enforced such restrictions have been accepted by many courts as allowable time, place and manner restrictions.

However, it must always be content neutral and the Town must be very consistent in applying these rules so they are always content neutral in application as well.

Most communities have time restrictions. Most are in the 3-5 minute range as that is a acceptable time in getting a clear point across, allows for all public to be heard and keeps the meeting on course and running efficiently. Therefore, the Town Council may consider time restrictions on public comment; however, time restrictions should be consistent for every agenda item and not change from item to item. Therefore, if the Town Council determines 3 minutes or 5 minutes is the best time limit it should always be the same whether there are 2 comments or 10 comments for a particular item.

c. What are the best practices in adopting a policy, gaining compliance and enforcement of public comment policies?

Adopt a policy or ordinance governing public comment which includes content neutral time restrictions for all speakers, deals with aggregating time (i.e. one speaker

representing 10 people does not get 30 minutes based on 3 minutes per person), designates what type of items receive public comment (all or public hearings) and governs submission of written comments. Then stick to the policy. To allow for exceptions not only disrupts meetings, but also opens up claims that the adopted policies as practiced are not content neutral, but are rather being applied based on content whether it actually is or not.

The other major consideration is how to deal with written materials and visual aids. No community I saw allowed for visual aids for public comment. Only agendaized speakers were allowed visual aids and even then the visual aids had to be submitted by packet deadlines. All communities allowed for the submission of written comments (letters, pictures, presentations, etc...) but only those submitted by a certain deadline. A requirement that all written comments including presentations must be submitted by a date and time certain ahead of the meeting such as 48 hours prior to the Council Meeting. This was done for several reasons. Running an efficient meeting is one, allowing council time to consider information was another, fairness to all submitting comments and for IT reasons as plugging in a random data stick has very real possible virus and other IT issues. Thus Council should consider a written comment and presentation section of the policy.

As for enforcement that is a bit of a tricky issue and there were no perfect solutions that any other jurisdictions had, yet there were some good ideas. Enforcement options start with either adopting the public comment rules as an ordinance with penalties or simply as a policy resolution. With an ordinance there can be real penalties and the ability for an attending officer to remove an egregious offender. Without an ordinance there can be no real penalties other than through state law, which is not tailored directly for local public meetings. If you were to go the route of an ordinance it would need to be narrowly tailored and include findings along the lines of how such violations subvert significant governmental interests in productive public meetings and in ensuring that others have the opportunity to speak.

Other options include turning off the microphones and council simply adjourning the meeting if a speaker refuses to abide by the rules. The down side to these options is that it doesn't prevent the speaker from continuing to speak without the microphone option and adjourning the meeting disrupts the meeting which is part of the goal to avoid.

Additional strategies to effectuate the desired policy are to (a) list the rules on every agenda; (b) read the rules before every public hearing/ public comment agenda item; (c) post the rules at the public comment microphone/elsewhere in council chambers; and (d) installing some sort of timer that either rings loudly and/or flashes from a red light to green light at the expiration of time.

One compromise position would be to adopt an ordinance but only allow penalties and removal of a speaker if the Council has turned off microphones, adjourned the meeting and reconvened, yet the speaker continues to disrupt the meeting.

### III. **Conclusion:**

As you can see there are a number of issues to consider in crafting a good public comment policy with a number of directions that Town Council could go on this. However, the most important lesson I have come across in my research is to adopt a policy and be rigorously consistent in sticking to the policy. There are not only legal reasons for doing so, as it keeps the policy content neutral and avoids free speech issues, but consistency also sets an expectation of regular, efficient, inclusive and effective meetings.

Town Council should consider the following:

1. What items to allow public comment on other than public hearings or only allow public comment at public hearings and establish a public comment period for all other public comment?
2. What restrictions (i.e. time) should be imposed on public comment?
3. What should a written comment/presentation policy look like?
4. To ordinance or not?

With direction on these items we can prepare a public comment policy for consideration at your next meeting.

							
<b>Business and Government Activity Report</b> <b>For the month ending: April 30th</b>							
Activity	2018		2017		Variance		
	MONTH	YTD	MONTH	YTD	Variance	Variance %	
<i>Some prior year numbers have been adjusted to accommodate the change in reporting by EBU</i>							
<b>Cable/Internet</b>							
# Residential & Bulk Basic Cable	820		833		(13)	-1.6%	
# Premium Channel Residential & Bulk Subscribers	471		507		(36)	-7.1%	
# Digital Subscribers	207		243		(36)	-14.8%	
# Internet Subscribers	1,732		1,665		67	4.0%	
Average # Phone Subscribers	101		99		2	2.0%	
<b>Village Court Apartments</b>							
Occupancy Rate	%	98.19%	98.98%	99.10%	98.64%	0.34%	0.3%
# Vacated Units		1	1	8	23	(22)	-95.7%
# Work Orders Completed		24	114	43	158	(44)	-27.8%
# on Waiting List		101		57		44	77.2%
<b>Public Works</b>							
Service Calls		377	895	258	873	22	2.5%
Snow Fall	Inches	19	154	13	105	49	46.7%
Snow Removal - Streets & Prkg Lots	Hours	61	1,434	74	1,171	263	22.5%
Roadway Maintenance	Hours	204	756	153	159	597	375.5%
Water Billed Consumption	Gal.	6,599,000	112,663,000	5,333,000	48,276,000	64,387,000	133.4%
Sewage Treatment	Gal.	6,973,000	30,815,000	6,011,000	32,941,000	(2,126,000)	-6.5%
<b>Child Development Fund</b>							
# Infants & Toddlers Actual Occupancy		19.94	84.01	19.89	86.49	(2.48)	-2.9%
# Preschoolers Actual Occupancy		14.57	59.76	15.62	58.71	1.05	1.8%
<b>Transportation and Parking</b>							
GPG (noon snapshot)		2,607	28,584	959	23,027	5,557	24.1%
GPG Parking Utilization (% of total # of spaces occupied)		18.9%	51.8%	6.9%	41.7%	10.1%	24.2%
HPG (noon snapshot)		554	6,214	360	6,186	28	0.5%
HPG Parking Utilization (% of total # of spaces occupied)		17.4%	48.9%	11.3%	48.6%	0.3%	0.6%
Total Parking (noon snapshot)		5,641	51,780	3,158	45,342	6,438	14.2%
Parking Utilization (% of total # of spaces occupied)		23.2%	53.3%	13.0%	46.7%	6.6%	14.1%
Paid Parking Revenues		\$4,642	\$103,128	\$4,065	\$105,719	(\$2,591)	-2.5%
Bus Routes	# of Passengers	2,925	3,338	3,056	3,056	282	9.2%
Employee Shuttle	# of Passengers	1,084	5,289	851	5,062	227	4.5%
Employee Shuttle Utilization Rate	%	45.1%	49.4%	43.1%	49.6%	-0.20%	-0.4%
Inbound (Vehicle) Traffic (Entrance)	# of Cars	42,857	246,436	70,710	271,687	(25,251)	-9.3%
PART TIME: 7town council, 12 daycare, judge, bldg admin SEASONAL: NEW HIRES: 2 DAR, 1 acct tech TERMS: 6 gondola ops, 1 veh mechanic, 1 acct tech, 1 gondola sup							
<b>Human Resources</b>							
FT Year Round Head Count		82		79		3	3.8%
Seasonal Head Count (FT & PT)		4		3		1	33.3%
PT Year Round Head Count		21		20		1	5.0%
Gondola FT YR, Seasonal, PT YR Head Count		38		39		(1)	-2.6%
Total Employees		145		141		4	2.8%
Gondola Overtime Paid	Hours	258	1023	91	497	526	105.9%
Other Employee Overtime Paid		92	230	67	258	(28)	-10.9%
# New Hires Total New Hires		3	14	4	22	(8)	-36.4%
# Terminations		9	18	22	36	(18)	-50.0%
# Workmen Comp Claims		0	2	0	3	(1)	-33.3%
Workmen Comp Claims Costs		\$0	\$504	\$204	\$5,754	(\$5,250)	-91.2%
Prior year numbers will be skewed due to several reasons, many transitions took place in 2017 leaving comparison information inaccurate.							
<b>Marketing &amp; Business Development</b>							
Town Hosted Meetings		4	18	4	17	1	5.9%
Email Correspondence Sent		4	20	4	19	1	5.3%
E-mail List	#	5,417		na		#VALUE!	#VALUE!
Wifi Subscribers		596		na		#VALUE!	#VALUE!
Press Releases Sent		4	5	1	1	4	400.0%
<b>Gondola and RETA</b>							
<i>Current RETA revenues are unaudited</i>							
Gondola	# of Passengers	51,785	1,032,758	20,884	1,018,909	13,849	1.4%
Chondola	# of Passengers	5,167	99,459	1,531	92,368	7,091	7.7%
RETA fees collected by TMVOA		393,195	2,109,705	638,937	2,704,728	(\$595,023)	-22.0%

Activity	2018		2017		Variance			
	MONTH	YTD	MONTH	YTD	Variance	Variance %		
<b>Police</b>								
Calls for Service	#	265	1,429	288	1,520	(91)	-6.0%	
Investigations	#	8	76	18	93	(17)	-18.3%	
Alarms	#	32	91	19	87	4	4.6%	
Arrests	#	2	10	1	4	6	150.0%	
Traffic Contacts	#	7	67	49	104	(37)	-35.6%	
Traffic Tickets Written	#	5	21	3	23	(2)	-8.7%	
Parking Tickets Written	#	124	1,306	135	1,222	84	6.9%	
Administrative Dismissals	#	4	29	5	17	12	70.6%	
<b>Building/Planning</b>								
Community Development Revenues		\$254,814	\$361,542	\$154,241	\$250,687	\$110,855	44.2%	
# Permits Issued		57	137	58	149	(12)	-8.1%	
Valuation of Mtn Village Remodel/New/Additions Permits		\$1,123,534	\$10,081,680	\$8,278,854	\$10,508,079	(\$426,399)	-4.1%	
Valuation Mtn Village Electric/Plumbing/Other Permits		\$501,871	\$700,409	\$1,267,653	\$1,464,801	(\$764,392)	-52.2%	
Valuation Telluride Electric/Plumbing Permits		\$567,686	\$1,518,303	\$275,435	\$1,203,523	\$314,780	26.2%	
# Inspections Completed		287	900	184	793	107	13.5%	
# Design Review/Zoning Agenda Items		8	40	4	37	3	8.1%	
# Staff Review Approvals		42	119	48	103	16	15.5%	
<b>Recreation</b>								
Winter - November 1 - April 30								
Mile of Trails Maintained		7.0	43.4	7.0	51.1	(7.70)	-15.1%	
Platform Tennis Registrations		0	106	12	240	(134)	-55.8%	
Ice Rink Skaters		0	2237	0	1526	711	46.6%	
Snow Cat Hours		0	32	0	358	(325)	-91.0%	
<b>Plaza Services</b>								
Snow Removal Plaza	Hours	73	848	38	1621	(773)	-47.7%	
Plaza Maintenance	Hours	404	1912	270	1467	446	30.4%	
Lawn Care	Hours	72	90	140	160	(70)	-43.8%	
Plant Care	Hours	118	208	150	314	(106)	-33.8%	
Irrigation	Hours	13	13	42	46	(33)	-71.4%	
TMV Trash Collection	Hours	88	468	39	341	127	37.2%	
Christmas Decorations	Hours	146	852	71	601	252	41.9%	
<b>Vehicle Maintenance</b>								
# Preventive Maintenance Performed		23	81	24	68	13	19.1%	
# Repairs Completed		20	126	25	81	45	55.6%	
Special Projects		2	4	5	9	(5)	-55.6%	
# Roadside Assists		1	1	0	3	(2)	-66.7%	
<b>Finance</b>								
# Employee Based Business Licenses Issued		21	746	17	713	33	4.6%	
# Privately Licensed Rentals		0	71	0	67	4	6.0%	
# Property Management Licensed Rentals		2	402	6	403	(1)	-0.2%	
# VRBO Listings for MV		406	412	412	412	(6)	-1.5%	
# Paperless Billing Accts (YTD is total paperless customers)		9	822	12	703	119	16.9%	
# of TMV AR Bills Processed		2,026	8,517	2,114	8,528	(11)	-0.1%	
<b>Accounts Receivable - Total Bad Debt Reserve/Allowance: \$</b>								
	<b>TMV Operating Receivables (includes Gondola funding)</b>		<b>Utilities - Cable and Water/Sewer</b>		<b>VCA - Village Court Apartments</b>		<b>General Fund Investment Activity</b>	
Current	\$574,228	96.1%	\$294,235	87.9%	\$72	2.4%	Change in Value (Month)	\$479,576
30+ Days	418	0.1%	30,733	9.2%	30	1.0%	Ending Balance	\$7,167,944
60+ Days	813	0.1%	4,862	1.5%	2,920	96.6%	Investment Income (Month)	\$9,656
90+ Days	4,960	0.8%	4,261	1.3%	-	0.0%	Portfolio Yield	1.64%
over 120 days	17,312	2.9%	718	0.2%	-	0.0%	Yield Change (Month)	+.03
Total	\$ 597,731	100.0%	\$ 334,809	100.0%	\$ 3,022	100.0%		
	<b>Other Billings - CDF, Construction Parking</b>		<b>Total All AR</b>		<b>Change Since Last Month - Increase (Decrease) in AR</b>		<b>Other Statistics</b>	
Current	\$ 33,213	57.2%	\$ 901,747	90.7%	\$ 187,755	92.9%	Population (estimated)	1,411
30+ Days	22,702	39.1%	53,883	5.4%	23,247	11.5%	(Active) Registered Voters	882
60+ Days	426	0.7%	9,021	0.9%	(5,097)	-2.5%	Property Valuation	289,947,030
90+ Days	276	0.5%	9,497	1.0%	(1,900)	-0.9%		
over 120 days	1,485	2.6%	19,515	2.0%	(1,809)	-0.9%		
Total	\$ 58,101	100.0%	\$ 993,663	100.0%	\$ 202,196	100.0%		



## Memorandum

**To:** Town Council  
**From:** Kevin Swain, Finance Director  
**Date:** May 9, 2018  
**Re:** Town of Mountain Village Financial Statements through March 2018

### Mountain Village Financials Statements through March 2018

#### General Fund Summary

At the end of the first quarter of 2018, the General Fund reflects a surplus of \$1.8 million. Sales taxes show an increase of 2% over prior year and 1% over budget. Revenues of \$4 million were over the budget by \$227,000 due mainly to property tax, sales tax, and plan review fees.

Total operating expenditures of \$2 million were under budget by \$152,000. After transfers, the surplus through the first quarter is a healthy \$1.8 million.

Transfers to other funds include:

Fund	This Month	YTD Budget	YTD Actual	Budget Variance
Capital Projects Fund (From GF)	\$ 1,996	\$ 10,000	\$ 10,248	248
Child Development Fund	\$ -	\$ -	\$ -	-
Conference Center Subsidy	\$ 4,572	\$ 33,067	\$ 32,131	(936)
Affordable Housing Development Fund (Monthly Sales Tax Allocation)	\$ 80,125	\$ 222,047	\$ 216,180	(5,867)
Vehicle & Equipment Acquisition Fund	\$ 167,686	\$ 207,000	\$ 206,816	(184)

Income transfers from other funds include:

Fund	This Month	YTD Budget	YTD Actual	Budget Variance
Overhead allocation from Broadband, W/S, Gondola, VCA and Parking Services	\$ 41,207	\$ 121,434	\$ 125,871	4,437
*Tourism Fund	\$ 12,847	\$ 31,751	\$ 38,164	6,413
*This transfer is comprised of administrative fees, interest, and penalties collected.				
Debt Service Fund (Specific ownership taxes)	\$ 1,927	\$ 21,848	\$ 7,776	(14,072)

**Vehicle and Equipment Acquisition Fund – No Fund Income Statement Attached**

A mini-ex for the recreation department, a backhoe and tilt deck for Road & Bridge, and some shop equipment have been purchased. \$163,088

**Capital Projects Fund – No Fund Income Statement Attached**

\$10,238 was spent on the Meadows Improvement Plan.

**Historical Museum Fund – No Fund Income Statement Attached**

\$44,257 in property taxes were collected and \$43,372 was tendered to the historical museum. The county treasurer retained \$885 in treasurer’s fees.

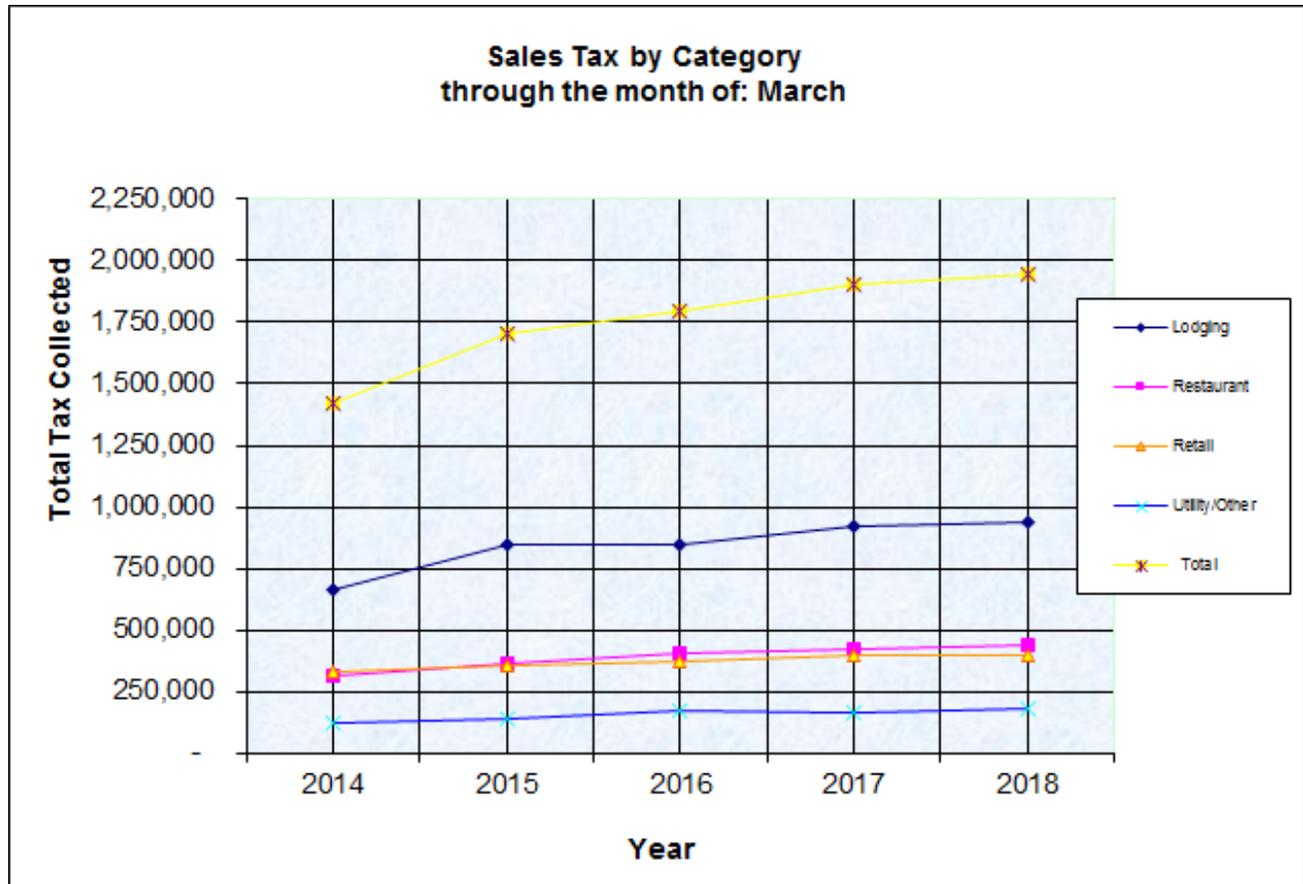
**Mortgage Assistance Fund – No Fund Income Statement Attached**

There has been no activity in this fund.

**Sales Tax**

Sales taxes of \$1.94 million are 2% over 2017 through this period and are over budget by 1%. Utility/Other shows the highest growth at 7.3%, followed by restaurant at 3.4%.

Actual Sales Tax Base By Class, Through March 2018										
Category	Actual 2014	Actual 2015	PY % Increase	Actual 2016	PY % Increase	Actual 2017	PY % Increase	Actual 2018	PY \$ Variance	PY % Increase
	4.5%	4.5%	2014 to 2015	4.5%	2015 to 2016	4.5%	2016 to 2017	4.5%	2017 to 2018	2017 to 2018
Lodging	14,669,774	18,842,330	28%	18,814,852	0%	20,474,728	9%	20,764,909	290,181	1.42%
Restaurant	6,954,850	8,147,019	17%	9,000,203	10%	9,422,582	5%	9,740,462	317,880	3.37%
Retail	7,362,514	7,845,827	7%	8,211,260	5%	8,817,015	7%	8,778,607	(38,408)	-0.44%
Utility/Other	2,671,279	3,090,776	16%	3,815,198	23%	3,669,648	-4%	3,936,287	266,638	7.27%
<b>Total</b>	<b>31,658,417</b>	<b>37,925,952</b>	<b>20%</b>	<b>39,841,512</b>	<b>5%</b>	<b>42,383,973</b>	<b>6%</b>	<b>43,220,264</b>	<b>836,291</b>	<b>1.97%</b>



## Tourism Fund

2018 restaurant taxes totaling \$194,609 have been collected and \$190,717 was tendered to the airline guarantee program. \$830,648 in lodging taxes were collected and \$818,189 was tendered to the airline guarantee program and to MTI. The Town retained \$16,351 in administrative fees, and penalties and interest of \$4,726.

Lodging taxes are exceeding prior year by 1.4% and exceeded budget by 2.7%. Restaurant taxes are ahead of prior year and budget by 3.3% and 6.5%, respectively.

Town of Mountain Village Colorado Lodging Tax Summary									
	2014	2015	2016	2017	2018		2017	2018	Budget
	Activity (4%)		Var %	Budget	Var %				
January	159,264	216,904	193,815	245,628	272,802		11.06%	241,544	11.46%
February	170,098	231,700	249,339	260,809	261,122		0.12%	258,018	1.19%
March	248,285	303,173	304,515	312,990	296,724		-5.20%	308,569	-3.99%
April	7,291	12,319	7,638	8,353	-		-100.00%	8,167	#DIV/0!
May	10,627	15,282	16,633	12,333	-		-100.00%	12,408	#DIV/0!
June	74,275	84,204	106,415	122,193	-		-100.00%	121,502	#DIV/0!
July	109,934	136,711	153,342	158,585	-		-100.00%	157,746	#DIV/0!
August	88,929	88,990	111,760	112,264	-		-100.00%	112,063	#DIV/0!
September	82,891	113,475	139,363	148,591	-		-100.00%	148,289	#DIV/0!
October	17,383	22,812	31,322	34,399	-		-100.00%	34,290	#DIV/0!
November	11,840	11,372	14,725	18,535	-		-100.00%	18,160	#DIV/0!
December	191,249	226,508	261,808	287,893	-		-100.00%	264,934	#DIV/0!
<b>Total</b>	<b>1,172,067</b>	<b>1,463,449</b>	<b>1,590,676</b>	<b>1,722,573</b>	<b>830,648</b>		<b>-51.78%</b>	<b>1,685,690</b>	<b>-102.94%</b>
<b>Tax Base</b>	<b>29,301,670</b>	<b>36,586,237</b>	<b>39,766,902</b>	<b>43,064,320</b>	<b>20,766,207</b>			<b>42,142,250</b>	

Town of Mountain Village Colorado Restaurant Tax Summary									
	2014	2015	2016	2017	2018		2017	2018	Budget
	Activity (2%)	Activity (2%)	Activity (2%)	Activity (2%)	Activity (2%)		Var %	Budget	Var %
January	38,239	46,261	48,594	54,097	57,188		5.72%	52,230	8.67%
February	48,466	53,871	60,243	60,144	63,140		4.98%	58,069	8.03%
March	53,516	60,420	71,171	74,202	74,280		0.11%	71,642	3.55%
April	1,995	2,876	1,511	1,829	-		-100.00%	1,766	#DIV/0!
May	5,154	5,457	4,568	4,448	-		-100.00%	4,294	#DIV/0!
June	25,366	25,426	34,359	34,365	-		-100.00%	33,179	#DIV/0!
July	32,661	40,081	44,827	46,470	-		-100.00%	44,866	#DIV/0!
August	25,017	29,015	35,020	34,998	-		-100.00%	33,790	#DIV/0!
September	23,831	32,169	36,195	39,291	-		-100.00%	37,891	#DIV/0!
October	5,369	9,492	11,312	13,519	-		-100.00%	13,020	#DIV/0!
November	5,765	6,637	5,099	5,352	-		-100.00%	5,244	#DIV/0!
December	49,923	55,055	59,070	54,303	-		-100.00%	52,049	#DIV/0!
<b>Total</b>	<b>315,303</b>	<b>366,759</b>	<b>411,969</b>	<b>423,017</b>	<b>194,609</b>		<b>-54.00%</b>	<b>408,040</b>	<b>-109.67%</b>
<b>Tax Base</b>	<b>15,765,152</b>	<b>18,337,941</b>	<b>20,598,437</b>	<b>21,150,852</b>	<b>9,730,440</b>			<b>20,402,000</b>	

Business license fees of \$288,681 are over budget (2%) and prior year (less than 1%). \$271,360 was remitted to MTI and \$22,230 in admin fees and penalties were transferred to the General Fund.



**To:** TMVOA; Town Council  
**From:** Kevin Swain, Finance Director  
**Date:** May 7, 2018  
**Re:** Gondola Quarterly Report, March 31, 2018

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At quarter end March 2018, the gondola fund is \$163,400 under budgeted expenses.

**Gondola Fund - Expenditures**

**1. Mobile Aerial Rapid Rescue System (MARRS):**

Annual budget: \$76,246  
YTD expenditures: \$13,771  
YTD budget: \$16,244

MARRS is 15% under budget. This is primarily due to savings in worker's compensation.

**2. Chondola Operations and Maintenance:**

Annual budget: \$206,751  
YTD expenditures: \$58,417  
YTD budget: \$75,392

Chondola operations expenses are under budget by 22.5%. Savings are mainly in utilities and other TSG costs which are not up to date at this time.

**3. Gondola Operations:**

Annual budget: \$1.9 million (includes grant success fees)  
YTD expenditures: \$425,703  
YTD budget: \$478,815

Gondola operations were under budget by \$53,100. Group insurance and worker's compensation premiums are under budget \$24,700 and \$24,900. Group insurance is under budget due mainly to turnover in positions. Worker's comp savings are a mixture of prior year audit, prior year dividend returns, and favorable rates.

**4. Gondola Maintenance:**

Annual budget: \$1.26 million  
YTD expenditures: \$303,604  
YTD budget: \$247,148

Gondola maintenance is under budget by \$43,544. Again, worker's compensation premiums are under \$20,700 and parts are under \$10,600.

**5. Fixed, General, Overhead and Administration:**

Annual budget: \$463,994  
YTD expenditures: \$135,619  
YTD budget: \$165,532

FGOA costs are \$29,913 below budget. Savings are mainly in utilities, both natural gas and electricity, and insurance.

**6. Town Administrative Overhead:**

Annual Budget: \$45,000  
YTD transfer: \$13,529  
YTD budget: \$11,250

Administrative allocations are based on actual hours and are considered a transfer to the General Fund rather than an expense.

**7. Major Repairs and Replacements:**

Annual Budget: \$1.4 million (there are matching grant funds of \$1.1 million towards expenses)  
YTD expenditures: \$308,149  
YTD budget: \$320,296

Expenditures made were for cabin refurbishment, haul ropes, and lightening array repairs/maintenance.

**8. Capital Outlay:**

Annual Budget: \$120,000  
YTD expenditures: \$323  
YTD budget: \$325

There has been very little activity to date.

**Overall Financial Performance through March 31, 2018**

Total gondola expenditures through this period of \$1.26 million were 31% under budget. Budget savings are due in large part to worker's compensation, and utility costs. Total funding for the period of \$1.26 million was primarily provided by TMVOA (70%), with contributions of approximately \$883,000, \$151,854 (12%) provided by TSG from lift ticket sales, \$203,153 in capital grant funding (16%), \$17,952 in operating grant funding (1%), and event operations funding of \$2,667.

**Town of Mountain Village Monthly Revenue and Expenditure Report  
March 2018**

	2018						2017	2016	2015
	Actual YTD	Budget YTD	Budget Variance	Budget Variance	Annual Budget	Budget Balance	Actual YTD	Actual YTD	Actual YTD
			(\$)	(%)					
<b>Revenues</b>									
Charges for Services	\$ 79,577	\$ 32,507	\$ 47,070	144.80%	\$ 306,432	\$ 226,855	\$ 90,473	\$72,001	\$44,254
Contributions	-	-	-	#DIV/0!	68,438	68,438	89,709	14,562	21,840
Fines and Forfeits	580	193	387	200.52%	6,077	5,497	222	3,133	1,554
Interest Income	1,061	10,506	(9,445)	-89.90%	45,000	43,939	18,154	36,122	36,990
Intergovernmental	151,143	136,727	14,416	10.54%	494,898	343,755	138,150	130,337	117,468
Licenses and Permits	48,931	28,989	19,942	68.79%	292,708	243,777	50,009	43,385	49,039
Miscellaneous Revenues	10,105	15,608	(5,503)	-35.26%	79,118	69,013	26,536	26,408	17,538
Taxes and Assessments	3,793,761	3,633,287	160,474	4.42%	9,016,979	5,223,218	3,654,624	3,435,679	3,234,214
<b>Total Revenues</b>	<b>4,085,158</b>	<b>3,857,817</b>	<b>227,341</b>	<b>5.89%</b>	<b>10,309,650</b>	<b>6,224,492</b>	<b>4,067,877</b>	<b>3,761,627</b>	<b>3,522,897</b>
<b>Operating Expenses</b>									
Legislation & Council	16,278	16,603	(325)	-1.96%	83,109	66,831	10,420	14,227	4,942
Town Manager	60,467	61,092	(625)	-1.02%	307,902	247,435	60,125	55,174	55,381
Administrative Services	86,125	96,805	(10,680)	-11.03%	411,967	325,842	95,013	82,706	73,775
Finance	274,343	278,884	(4,541)	-1.63%	844,120	569,777	268,478	267,144	282,256
Technical	151,919	123,487	28,432	23.02%	291,615	139,696	79,598	69,015	66,850
Human Resources	79,390	81,423	(2,033)	-2.50%	330,074	250,684	70,160	71,925	63,627
Town Attorney	98,391	110,163	(11,772)	-10.69%	527,994	429,603	104,697	145,664	136,872
Marketing and Business Development	77,102	84,997	(7,895)	-9.29%	440,173	363,071	65,787	89,313	61,541
Municipal Court	6,440	7,272	(832)	-11.44%	31,839	25,399	6,664	6,942	6,351
Police Department	195,565	247,067	(51,502)	-20.85%	985,164	789,599	186,217	179,561	192,699
Community Services	11,300	12,797	(1,497)	-11.70%	54,433	43,133	10,918	10,466	11,745
Community Grants and Contributions	24,350	29,350	(5,000)	-17.04%	126,850	102,500	16,000	16,000	20,000
Roads and Bridges	171,122	175,178	(4,056)	-2.32%	1,122,357	951,235	167,948	164,071	168,885
Vehicle Maintenance	106,890	113,790	(6,900)	-6.06%	453,126	346,236	105,965	116,927	109,015
Municipal Bus	25,431	15,114	10,317	68.26%	189,635	164,204	45,714	30,630	13,480
Employee Shuttle	14,230	18,285	(4,055)	-22.18%	86,043	71,813	10,767	12,569	12,321
Parks & Recreation	132,240	122,840	9,400	7.65%	611,003	478,763	87,220	105,920	103,451
Plaza Services	260,596	326,139	(65,543)	-20.10%	1,397,252	1,136,656	238,909	326,315	268,668
Public Refuse Removal	14,827	13,988	839	6.00%	65,028	50,201	10,972	11,909	12,711
Building/Facility Maintenance	32,287	48,410	(16,123)	-33.31%	209,424	177,137	50,276	30,815	38,001
Planning & Development Services	1,706	1,833	(127)	-6.93%	6,649	4,943	2,294	1,770	1,362
Building Division	62,094	67,199	(5,105)	-7.60%	548,963	486,869	143,731	172,864	72,271
Housing Division Office	4,212	5,096	(884)	-17.35%	19,808	15,596	4,845	4,743	4,321
Planning and Zoning Division	74,074	75,127	(1,053)	-1.40%	97,831	96,125	89,005	64,800	55,096
Contingency	-	-	-	#DIV/0!	638,542	634,330	-	-	-
<b>Total Operating Expenses</b>	<b>1,981,379</b>	<b>2,132,939</b>	<b>(151,560)</b>	<b>-7.11%</b>	<b>9,880,901</b>	<b>7,967,678</b>	<b>1,931,723</b>	<b>2,051,470</b>	<b>1,835,621</b>
Surplus / Deficit	2,103,779	1,724,878	378,901	21.97%	428,749	(1,743,186)	2,136,154	1,710,157	1,687,276
Capital Outlay	7,115	7,108	7	0.10%	905,000	897,885	32,270	4,301	57,457
Surplus / Deficit	2,096,664	1,717,770	378,894	22.06%	(476,251)	(2,572,915)	2,103,884	1,705,856	1,629,819
<b>Other Sources and Uses</b>									
Sale of Assets	14,247	-	14,247	#DIV/0!	-	(14,247)	-	4,822	25,119
Transfer (To) From Affordable Housing	(216,180)	(222,047)	5,867	-2.64%	(460,969)	(244,789)	(210,363)	(197,581)	(193,392)
Transfer (To) From Broadband	-	-	-	#DIV/0!	10,000	10,000	-	-	111,801
Transfer (To) From Child Development	-	-	-	#DIV/0!	(192,041)	(159,910)	-	-	-
Transfer (To) From Capital Projects	(10,248)	(10,000)	(248)	2.48%	(300,000)	(338,164)	(10,311)	-	-
Transfer (To) From Debt Service	7,776	21,848	(14,072)	-64.41%	85,587	(40,284)	38,218	36,539	36,444
Transfer (To) From Overhead Allocation	125,871	121,434	4,437	3.65%	494,374	368,503	118,427	113,833	103,915
Transfer (To) From Parking Services	-	-	-	#DIV/0!	(65,835)	(65,835)	-	-	-
Transfer (To) From Conference Center	(32,131)	(33,067)	936	-2.83%	(259,352)	(259,352)	(56,274)	(49,120)	(24,254)
Transfer (To) From Tourism	38,164	31,751	6,413	20.20%	24,865	17,089	37,419	10,713	40,579
Transfer (To) From Vehicle/Equipment	(206,816)	(207,000)	184	-0.09%	(434,725)	(227,909)	(268,888)	(67,324)	(24,453)
Transfer (To) From Water/Sewer	-	-	-	#DIV/0!	-	-	-	-	-
<b>Total Other Sources and Uses</b>	<b>(279,317)</b>	<b>(297,081)</b>	<b>17,763</b>	<b>-5.98%</b>	<b>(1,098,096)</b>	<b>(954,898)</b>	<b>(351,772)</b>	<b>(148,118)</b>	<b>75,759</b>

2018						2017	2016	2015
Actual YTD	Budget YTD	Budget Variance (\$)	Budget Variance (%)	Annual Budget	Budget Balance	Actual YTD	Actual YTD	Actual YTD

Surplus / Deficit \$ 1,817,347 \$ 1,420,689 \$ 396,657 27.92% \$ (1,574,347) \$ (3,527,813) \$ 1,752,112 \$ 1,557,738 \$ 1,705,578

<u>Beginning Fund Balance Components</u>	<u>Actual YTD</u>	<u>Annual Budget</u>
Emergency Reserve	\$ 3,458,315	\$ 3,458,314
Unreserved	7,455,610	5,542,978
<b>Beginning Fund Balance</b>	<b>\$ 10,913,925</b>	<b>\$ 9,001,292</b>

<u>YTD Ending Fund Balance Components</u>		
Emergency Reserve	\$ 3,458,315	\$ 3,458,314
Health Care Premium Savings Reserve	50,000	50,000
Facility Maint Reserve	155,000	155,000
Unreserved	9,067,957	3,763,631
<b>Ending Fund Balance</b>	<b>\$ 12,731,272</b>	<b>\$ 7,426,945</b>

**Revenues**

- Taxes & Assessments - Property taxes are exceeding budget at this time. Specific Ownership taxes collected are exceeding budget and prior year.
- Sales tax revenues are 1% over budget and 2% over prior year. Construction use tax are exceeding budget but under prior year.
- Licenses & Permits - Electrical, and plumbing permits are over budget.
- Intergovernmental - Intergovernmental revenues are under budget due to county R&B taxes.
- Charges for Services - DRB fees are over budget \$306,000 and plan review fees are exceeding budget \$9,000.
- Fines & Forfeitures -Slightly over budget.
- Investment Income - Interest is under budget and prior year.
- Miscellaneous - Under budget in plaza rents.
- Contributions - No activity to date.

**Top Ten Budget Variances**

**Under Budget**

- Plaza Services - \$65,543 Under budget in natural gas, mainly due to unbilled services.
- Police - \$51,502 Savings in personnel costs due to vacancies and turnover.
- Building/Facility Maintenance - \$16,123 Savings in personnel costs due to vacancies and turnover.
- Town Attorney - \$11,772 General legal is running behind budget.
- Admin Services- \$10,680 Under budget in utilities.
- Marketing and Business Development - \$7,895 Under budget in live video streaming.

**Over Budget**

- Technical - \$28,432 Over budget due to the unbudgeted Opengov implementation.
- Municipal Bus Service - \$10,317 Over budget due to group insurance and worker's comp.
- Parks and Recreation - \$9,400 Over budget in trail maintenance and labor costs.
- Trash Removal - \$839 Removal services are over budget and prior year.

**Town of Mountain Village Monthly Revenue and Expenditure Report  
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	2018						2017	2016	2015
	Actual	Budget	Budget	Budget	Annual	Budget	Actual	Actual	Actual
	YTD	YTD	Variance	Variance	Budget	Balance	YTD	YTD	YTD
		(\$)	(%)						
<b>Tourism Fund</b>									
<b>Revenues</b>									
Business License Fees	\$ 288,681	\$ 282,348	\$ 6,333	2%	\$ 315,307	\$ 26,626	\$ 287,305	\$264,658	\$238,172
Lodging Taxes - Condos/Homes	493,675	447,993	45,682	10%	893,416	399,741	476,018	432,294	435,289
Lodging Taxes - Hotels	333,267	360,139	(26,872)	-7%	792,274	459,007	343,408	315,375	316,150
Lodging Taxes - Prior Year	3,768	-	3,768	#DIV/0!	-	(3,768)	476	786	-
Penalties and Interest	9,635	4,249	5,386	127%	15,000	5,365	4,113	5,007	11,795
Restaurant Taxes	194,314	181,941	12,373	7%	408,040	213,726	188,443	180,008	160,552
Restaurant Taxes - Prior Year	394	-	394	#DIV/0!	-	(394)	-	-	568
<b>Total Revenues</b>	<b>1,323,735</b>	<b>1,276,670</b>	<b>47,065</b>	<b>4%</b>	<b>2,424,037</b>	<b>1,100,302</b>	<b>1,299,764</b>	<b>1,198,128</b>	<b>1,162,526</b>
<b>Tourism Funding</b>									
Additional Funding	5,147	5,200	(53)	-1%	40,000	34,853	-	25,000	-
Airline Guaranty Funding	597,863	574,287	23,575	4%	1,225,867	628,005	586,426	543,151	526,103
MTI Funding	682,562	665,432	17,129	3%	1,130,805	448,243	675,919	619,264	595,844
<b>Total Tourism Funding</b>	<b>1,285,571</b>	<b>1,244,920</b>	<b>40,652</b>	<b>97%</b>	<b>2,396,672</b>	<b>1,111,101</b>	<b>1,262,345</b>	<b>1,187,415</b>	<b>1,121,947</b>
Surplus / Deficit	38,164	31,751	6,413	20%	27,365	(10,799)	37,419	10,713	40,579
<b>Administrative Fees</b>									
Audit Fees	-	-	-	#DIV/0!	2,500	2,500	-	-	-
<b>Total Administrative Fees</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>#DIV/0!</b>	<b>2,500</b>	<b>2,500</b>	<b>-</b>	<b>-</b>	<b>-</b>
Surplus / Deficit	38,164	31,751	6,413	20%	24,865	(13,299)	37,419	10,713	40,579
<b>Other Sources and Uses</b>									
Transfer (To) From Other Funds	(38,164)	(31,751)	(6,413)	20%	(24,865)	13,299	(37,419)	(10,713)	(40,579)
<b>Total Other Sources and Uses</b>	<b>(38,164)</b>	<b>(31,751)</b>	<b>(6,413)</b>	<b>20%</b>	<b>(24,865)</b>	<b>13,299</b>	<b>(37,419)</b>	<b>(10,713)</b>	<b>(40,579)</b>
Surplus / Deficit	\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -

**Town of Mountain Village Monthly Revenue and Expenditure Report  
March 2018**

	2018				2017	2016	2015		
	Actual YTD	Budget YTD	Budget Variance (\$)	Budget Variance (%)	Annual Budget	Budget Balance	Actual YTD	Actual YTD	Actual YTD
<b>Parking Services Fund</b>									
<b>Revenues</b>									
Contributions/Shared Facility Expenses	\$ -	\$ -	\$ -	#DIV/0!	\$ 13,473	\$ 13,473	\$ 621	\$ 5,432	\$ 1,321
Fines and Forfeits	11,614	8,199	3,415	42%	24,900	13,286	7,715	13,760	13,280
Gondola Parking Garage	13,590	13,897	(307)	-2%	105,000	91,410	15,310	13,120	71,778
Heritage Parking Garage	75,849	62,096	13,753	22%	150,000	74,151	80,771	53,448	68,653
Parking in Lieu Buyouts	-	-	-	#DIV/0!	-	-	-	-	-
Parking Meter Revenues	6,112	3,278	2,834	86%	12,000	5,888	5,058	950	3,148
Parking Permits	2,935	2,687	248	9%	12,000	9,065	2,810	2,640	4,135
Special Event Parking	-	-	-	#DIV/0!	41,000	41,000	20,000	60	-
<b>Total Revenues</b>	<b>110,100</b>	<b>90,157</b>	<b>19,943</b>	<b>22%</b>	<b>358,373</b>	<b>248,273</b>	<b>132,285</b>	<b>89,410</b>	<b>162,315</b>
<b>Operating Expenses</b>									
Other Operating Expenses	989	1,032	(43)	-4%	24,630	23,641	985	2,874	339
Personnel Expenses	28,511	31,793	(3,282)	-10%	137,392	108,881	28,173	34,133	34,735
Gondola Parking Garage	8,518	9,129	(611)	-7%	62,969	54,451	7,903	13,656	11,902
Surface Lots	1,303	1,617	(314)	-19%	27,900	26,597	2,753	3,025	9,425
Heritage Parking Garage	15,367	23,499	(8,132)	-35%	105,093	89,726	21,778	30,933	19,978
Meadows Parking	-	-	-	#DIV/0!	1,000	1,000	-	-	-
<b>Total Operating Expenses</b>	<b>54,688</b>	<b>67,070</b>	<b>(12,382)</b>	<b>-18%</b>	<b>358,984</b>	<b>304,296</b>	<b>61,592</b>	<b>84,621</b>	<b>76,379</b>
Surplus / Deficit	55,412	23,087	32,325	140%	(611)	(56,023)	70,693	4,789	85,936
<b>Capital</b>									
Capital	-	-	-	#DIV/0!	34,800	34,800	4,800	-	10,895
Surplus / Deficit	55,412	23,087	32,325	140%	(35,411)	(90,823)	65,893	4,789	75,041
<b>Other Sources and Uses</b>									
Sale of Assets	-	-	-	#DIV/0!	-	-	-	-	-
Overhead Allocation	(7,606)	(7,606)	-	0%	(30,424)	(22,818)	(7,280)	(7,083)	(7,243)
Transfer (To) From General Fund	-	-	-	#DIV/0!	65,835	65,835	-	-	-
<b>Total Other Sources and Uses</b>	<b>(7,606)</b>	<b>(7,606)</b>	<b>-</b>	<b>0%</b>	<b>35,411</b>	<b>43,017</b>	<b>(7,280)</b>	<b>(7,083)</b>	<b>(7,243)</b>
Surplus / Deficit	\$ 47,806	\$ 15,481	\$ -	0%	\$ -	\$ -	\$ 58,613	\$ (2,294)	\$ 67,798
<b>Beginning Fund Balance</b>	\$ 144,009	\$ 144,009	\$ -						
<b>Ending Fund Balance</b>	\$ 191,815	\$ 159,490	\$ 32,325						

Parking revenues are over budget \$19,900. HPG revenues are over budget 22% and under prior year 6%. Parking meter (surface lots) revenues are under budget 19% and prior year 52%. GPG is under budget and over prior year 2% and 11%. Personnel costs and other costs are under budget. HPG is under budget in shared expenses. The year to date transfer to the General Fund is \$7,606, which is the overhead allocation.

**Town of Mountain Village Monthly Revenue and Expenditure Report  
March 2018**

	2018					2017	2016	2015	
	Actual YTD	Budget YTD	Budget Variance (\$)	Budget Variance (%)	Annual Budget	Budget Balance	Actual YTD	Actual YTD	Actual YTD
<b>Gondola Fund</b>									
<b>Revenues</b>									
Event Operations Funding	\$ 2,667	\$ -	\$ 2,667	#DIV/0!	\$ -	\$ (2,667)	\$ 5,148	\$ 4,944	\$ 5,425
Event Operations Funding - TOT	-	-	-	#DIV/0!	36,000	36,000	-	-	-
Operations Grant Funding	17,952	18,000	(48)	-0.27%	150,100	132,148	16,153	-	14,943
Capital/MR&R Grant Funding	203,153	203,153	-	0.00%	784,000	580,847	88,000	235,594	-
Insurance Proceeds	-	-	-	#DIV/0!	-	-	-	-	-
Miscellaneous Revenues	661	-	661	#DIV/0!	-	(661)	-	158	100
Sale of Assets	-	-	-	#DIV/0!	-	-	-	3,350	4,000
TMVOA Operating Contributions	777,510	900,971	(123,461)	-13.70%	3,676,282	2,898,772	790,866	806,675	874,463
TMVOA Capital/MR&R Contributions	105,319	117,468	(12,149)	-10.34%	1,103,426	998,107	239,507	195,026	15,000
TSG 1% Lift Sales	151,854	175,410	(23,556)	-13.43%	200,000	48,146	163,196	152,913	139,315
<b>Total Revenues</b>	<b>1,259,116</b>	<b>1,415,002</b>	<b>(155,886)</b>	<b>-11.02%</b>	<b>5,949,808</b>	<b>4,690,692</b>	<b>1,302,870</b>	<b>1,398,659</b>	<b>1,053,246</b>
<b>Operating Expenses</b>									
Overhead Allocation Transfer	13,529	11,250	2,279	20.26%	45,000	31,471	11,481	13,434	10,440
MAARS	13,771	16,244	(2,473)	-15.22%	76,246	62,475	13,960	14,084	15,190
Chondola	58,417	75,392	(16,975)	-22.52%	206,751	148,334	69,870	72,219	77,181
Grant Success Fees	-	-	-	#DIV/0!	56,046	56,046	-	-	-
Operations	425,704	478,815	(53,111)	-11.09%	1,846,562	1,420,858	419,490	427,226	434,143
Maintenance	303,604	347,148	(43,544)	-12.54%	1,257,115	953,511	312,870	297,091	366,830
FGOA	135,619	165,532	(29,913)	-18.07%	463,994	328,375	147,692	143,985	134,462
Major Repairs and Replacements	308,149	320,296	(12,147)	-3.79%	1,767,426	1,459,277	133,594	136,127	15,000
Contingency	-	-	-	#DIV/0!	110,668	110,668	-	-	-
<b>Total Operating Expenses</b>	<b>1,258,793</b>	<b>1,414,677</b>	<b>(155,884)</b>	<b>-11.02%</b>	<b>5,829,808</b>	<b>4,571,015</b>	<b>1,108,957</b>	<b>1,104,166</b>	<b>1,053,246</b>
Surplus / Deficit	323	325	(2)	-0.62%	120,000		193,913	294,493	-
<b>Capital</b>									
Capital Outlay	323	325	(2)	-0.62%	120,000	119,677	193,913	294,493	-
Surplus / Deficit	\$ -	\$ -	\$ -	#DIV/0!	\$ -	\$ -	\$ -	\$ -	\$ -

**Town of Mountain Village Monthly Revenue and Expenditure Report  
March 2018**

	2018						2017	2016	2015
	Actual YTD	Budget YTD	Budget Variance (\$)	Budget Variance (%)	Annual Budget	Budget Balance	Actual YTD	Actual YTD	Actual YTD
<b>Child Development Fund</b>									
<b>Revenues</b>									
Daycare Fees	\$ 71,964	\$ 77,146	(5,182)	-6.72%	\$ 275,396	\$ 203,432	\$ 76,531	\$74,219	\$62,065
Fundraising Revenues - Daycare	1,950	600	1,350	225.00%	8,500	6,550	1,184	1,115	1,359
Fundraising Revenues - Preschool	-	-	-	0.00%	3,500	(42,337)	-	-	374
Grant Revenues - Daycare	29,505	25,000	4,505	18.02%	35,000	5,495	24,450	14,414	11,241
Grant Revenues - Preschool	14,700	15,000	(300)	-2.00%	15,000	300	13,000	7,783	7,631
Preschool Fees	45,837	48,701	(2,864)	-5.88%	177,167	177,167	44,863	44,575	42,399
<b>Total Revenues</b>	<b>163,956</b>	<b>166,447</b>	<b>(2,491)</b>	<b>-1.50%</b>	<b>514,563</b>	<b>350,607</b>	<b>160,028</b>	<b>142,106</b>	<b>125,069</b>
<b>Operating Expenses</b>									
Daycare Other Expense	14,355	20,656	(6,301)	-30.50%	99,346	84,991	15,873	21,449	13,150
Daycare Personnel Expense	80,411	81,270	(859)	-1.06%	383,294	302,883	74,562	84,310	70,158
Preschool Other Expense	13,139	9,564	3,575	37.38%	42,410	29,271	8,254	6,776	7,814
Preschool Personnel Expense	36,084	38,941	(2,857)	-7.34%	181,554	145,470	34,050	26,621	28,982
<b>Total Operating Expenses</b>	<b>143,989</b>	<b>150,431</b>	<b>(6,442)</b>	<b>-4.28%</b>	<b>706,604</b>	<b>562,615</b>	<b>132,739</b>	<b>139,156</b>	<b>120,104</b>
Surplus / Deficit	19,967	16,016	3,951	24.67%	(192,041)		27,289	2,950	4,965
<b>Other Sources and Uses</b>									
Contributions	-	-	-	#DIV/0!	-	-	-	-	-
Transfer (To) From General Fund	-	-	-	#DIV/0!	192,041	192,041	-	-	-
<b>Total Other Sources and Uses</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>#DIV/0!</b>	<b>192,041</b>	<b>192,041</b>	<b>-</b>	<b>-</b>	<b>-</b>
Surplus / Deficit	\$ 19,967	\$ 16,016	\$ (3,951)	-24.67%	\$ -		\$ 27,289	\$ 2,950	\$ 4,965

Child Development revenues are \$2,500 under budget or 1.5%. Operating expenses are \$6,400 under budget due primarily to group insurance in both daycare and preschool. The program has not required funds from the General Fund to date.

**Town of Mountain Village Monthly Revenue and Expenditure Report  
March 2018**

	2018						2017	2016	2015	
	Actual YTD	Budget YTD	Budget Variance (\$)	Budget Variance (%)	Annual Budget	Budget Balance	Actual YTD	Actual YTD	Actual YTD	
<b>Water &amp; Sewer Fund</b>										
<b>Revenues</b>										
Mountain Village Water and Sewer	\$ 793,471	\$ 584,542	\$ 208,929	35.74%	\$ 2,499,793	\$ 1,706,322	\$ 600,015	\$522,149	\$521,904	
Other Revenues	1,478	2,155	(677)	-31.42%	13,450	11,972	2,416	2,109	2,164	
Ski Ranches Water	37,033	37,507	(474)	-1.26%	161,263	124,230	36,332	32,877	31,762	
Skyfield Water	5,255	4,885	370	7.57%	27,896	22,641	4,789	4,330	4,897	
<b>Total Revenues</b>	<b>837,237</b>	<b>629,089</b>	<b>208,148</b>	<b>33.09%</b>	<b>2,702,402</b>	<b>1,865,165</b>	<b>643,552</b>	<b>561,465</b>	<b>560,727</b>	
<b>Operating Expenses</b>										
Mountain Village Sewer	81,019	64,090	16,929	26.41%	547,636	466,617	59,393	67,226	64,179	
Mountain Village Water	274,643	232,425	42,218	18.16%	1,123,518	848,875	215,042	202,447	201,764	
Ski Ranches Water	3,950	4,566	(616)	-13.49%	42,283	38,333	2,393	4,331	5,145	
Contingency	-	-	-	#DIV/0!	34,269	34,269	-	-	-	
<b>Total Operating Expenses</b>	<b>359,612</b>	<b>301,081</b>	<b>58,531</b>	<b>19.44%</b>	<b>1,747,706</b>	<b>1,388,094</b>	<b>276,828</b>	<b>274,004</b>	<b>271,088</b>	
Surplus / Deficit	477,625	328,008	149,617	45.61%	954,696		366,724	287,461	289,639	
<b>Capital</b>										
Capital Outlay	28,382	56,071	(27,689)	-49.38%	1,379,250	1,350,868	23,828	72,763	46,473	
Surplus / Deficit	449,243	271,937	177,306	65.20%	(424,554)		342,896	214,698	243,166	
<b>Other Sources and Uses</b>										
Overhead Allocation Transfer	(38,102)	(38,102)	-	0.00%	(152,406)	(114,304)	(36,151)	(34,364)	(30,536)	
Mountain Village Tap Fees	900	-	900	#DIV/0!	100,000	99,100	113,108	-	-	
Grants	-	-	-	#DIV/0!	-	-	-	-	-	
Ski Ranches Tap Fees	-	-	-	#DIV/0!	5,000	5,000	6,320	-	-	
Skyfield Tap Fees	-	-	-	#DIV/0!	2,000	2,000	-	-	-	
Sale of Assets	-	-	-	#DIV/0!	-	-	-	-	-	
Transfer (To) From General Fund	-	-	-	#DIV/0!	-	-	-	-	-	
<b>Total Other Sources and Uses</b>	<b>(37,202)</b>	<b>(38,102)</b>	<b>900</b>	<b>-2.36%</b>	<b>(45,406)</b>	<b>(8,204)</b>	<b>83,277</b>	<b>(34,364)</b>	<b>(30,536)</b>	
Surplus / Deficit	\$ 412,041	\$ 233,835	\$ 178,206	76.21%	\$ (469,960)		\$ 426,173	\$ 180,334	\$ 212,630	

Snowmaking is over budget \$195,000. Skyfield, Ski Ranches, and other revenues are on budget. Sewer expenditures are over budget by 26% due to regional (TOT) costs. MV water is over budget in large part due to electricity, because of snowmaking. Ski Ranches, which is over budget in salaries and wages but have savings in utilities. Capital costs were for a the Ski Ranches project, generators, water rights, and regional sewer.

**Town of Mountain Village Monthly Revenue and Expenditure Report  
March 2018**

	2018					2017	2016	2015	
	Actual YTD	Budget YTD	Budget Variance (\$)	Budget Variance (%)	Annual Budget	Budget Balance	Actual YTD	Actual YTD	Actual YTD
<b>Broadband Fund</b>									
<b>Revenues</b>									
Cable User Fees	\$ 249,284	\$ 260,869	\$ (11,585)	-4.44%	\$ 1,002,395	\$ 753,111	\$ 232,129	\$217,219	\$212,672
Internet User Fees	259,515	222,580	36,935	16.59%	877,312	617,797	241,820	220,941	198,476
Other Revenues	12,694	13,687	(993)	-7.26%	62,764	52,136	13,434	12,050	18,469
Phone Service Fees	10,628	9,513	1,115	11.72%	35,987	23,293	9,989	9,157	9,237
<b>Total Revenues</b>	<b>532,121</b>	<b>506,649</b>	<b>25,472</b>	<b>5.03%</b>	<b>1,978,458</b>	<b>1,446,337</b>	<b>497,372</b>	<b>459,367</b>	<b>438,854</b>
<b>Operating Expenses</b>									
Cable Direct Costs	212,087	236,923	(24,836)	-10.48%	904,894	692,807	206,534	198,287	163,591
Phone Service Costs	5,890	6,768	(878)	-12.97%	27,000	21,110	6,077	6,549	6,916
Internet Direct Costs	51,000	51,000	-	0.00%	204,000	153,000	59,100	59,100	27,000
Cable Operations	129,371	134,885	(5,514)	-4.09%	664,443	535,072	130,865	129,231	123,012
Contingency	2,313	2,400	(87)	-3.63%	3,000	687	-	-	-
<b>Total Operating Expenses</b>	<b>400,661</b>	<b>431,976</b>	<b>(31,315)</b>	<b>-7.25%</b>	<b>1,803,337</b>	<b>1,402,676</b>	<b>402,576</b>	<b>393,167</b>	<b>320,519</b>
Surplus / Deficit	131,460	74,673	56,787	76.05%	175,121		94,796	66,200	118,335
<b>Capital</b>									
Capital Outlay	-	-	-	#DIV/0!	87,500	87,500	30,000	30,991	29,109
Surplus / Deficit	131,460	74,673	56,787	76.05%	87,621		64,796	35,209	89,226
<b>Other Sources and Uses</b>									
Sale of Assets	-	-	-	#DIV/0!	-	-	-	-	-
Transfer (To) From General Fund	-	-	-	#DIV/0!	(10,000)	(10,000)	-	-	(111,801)
Overhead Allocation Transfer	(39,314)	(39,314)	-	0.00%	(157,258)	(117,944)	(35,474)	(31,799)	(27,425)
<b>Total Other Sources and Uses</b>	<b>(39,314)</b>	<b>(39,314)</b>	<b>-</b>	<b>0.00%</b>	<b>(167,258)</b>	<b>(127,944)</b>	<b>(35,474)</b>	<b>(31,799)</b>	<b>(139,226)</b>
Surplus / Deficit	\$ 92,146	\$ 35,359	\$ 56,787	160.60%	\$ (79,637)		\$ 29,322	\$ 3,410	\$ (50,000)
<b>Beginning (Available) Fund Balance</b>	\$ 126,924	\$ 126,924	\$ -						
<b>Ending (Available) Fund Balance</b>	\$ 219,070	\$ 162,283	\$ 56,787						

Cable user revenues are under budget and over prior year. The prior year variance is mainly due to increased rates. Internet revenues are over budget and prior year 16.6% and 7%. Other revenues are under budget 7% due primarily to equipment rental revenues. Direct costs for cable are under budget and over prior year due to increasing programming costs. Internet costs are right on budget and is normally a flat monthly fee. Phone service revenues are over budget by 11.7%, while phone service expenses are under budget by 13%. Cable operating expenses are under budget with small savings in multiple line items. There have been no capital expenses through 186 time period.

**Town of Mountain Village Monthly Revenue and Expenditure Report  
March 2018**

	2018				Annual Budget	Budget Balance	2017	2016	2015
	Actual YTD	Budget YTD	Budget Variance (\$)	Budget Variance (%)			Actual YTD	Actual YTD	Actual YTD
<b>Telluride Conference Center Fund</b>									
<b>Revenues</b>									
Beverage Revenues	\$ -	\$ -	\$ -	#DIV/0!	\$ -	\$ -	\$ -	\$ -	\$ -
Catering Revenues	-	-	-	#DIV/0!	-	-	-	-	-
Facility Rental	-	-	-	#DIV/0!	-	-	-	-	-
Operating/Other Revenues	-	-	-	#DIV/0!	-	-	-	-	-
<b>Total Revenues</b>	-	-	-	#DIV/0!	-	-	-	-	-
<b>Operating Expenses</b>									
General Operations	2,017	2,100	(83)	-3.95%	50,000	47,983	-	-	27
Administration	25,542	25,967	(425)	-1.64%	89,352	63,810	25,710	24,120	24,227
Marketing	-	-	-	#DIV/0!	100,000	100,000	25,000	25,000	-
Contingency	-	-	-	#DIV/0!	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>27,559</b>	<b>28,067</b>	<b>(508)</b>	<b>-1.81%</b>	<b>239,352</b>	<b>211,793</b>	<b>50,710</b>	<b>49,120</b>	<b>24,254</b>
Surplus / Deficit	(27,559)	(28,067)	508	-1.81%	(239,352)		(50,710)	(49,120)	(24,254)
Capital Outlay/ Major R&R	4,572	5,000	(428)	-8.56%	20,000	15,428	5,564	-	-
Surplus / Deficit	(32,131)	(33,067)	936	-2.83%	(259,352)		(56,274)	(49,120)	(24,254)
<b>Other Sources and Uses</b>									
Damage Receipts	-	-	-	#DIV/0!	-	-	-	-	-
Insurance Proceeds	-	-	-	#DIV/0!	-	-	-	-	-
Sale of Assets	-	-	-	#DIV/0!	-	-	-	-	-
Transfer (To) From General Fund	32,131	33,067	(936)	-2.83%	259,352	227,221	56,274	49,120	24,254
Overhead Allocation Transfer	-	-	-	#DIV/0!	-	-	-	-	-
<b>Total Other Sources and Uses</b>	<b>32,131</b>	<b>33,067</b>	<b>(936)</b>	<b>74.00%</b>	<b>259,352</b>	<b>227,221</b>	<b>56,274</b>	<b>49,120</b>	<b>24,254</b>
Surplus / Deficit	\$ -	\$ -	\$ 0	#DIV/0!	\$ -		\$ -	\$ -	\$ -

Expenses for the year are HOA dues, HVAC repairs, and other minor facility repairs.

**Town of Mountain Village Monthly Revenue and Expenditure Report  
March 2018**

	2018				2017	2016	2015			
	Actual YTD	Budget YTD	Budget Variance (\$)	Budget Variance (%)	Annual Budget	Budget Balance	Actual YTD	Actual YTD	Actual YTD	
<b>Affordable Housing Development Fund</b>										
<b>Revenues</b>										
Contributions	\$ -	\$ -	\$ -	#DIV/0!	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Grant Proceeds	-	-	-	#DIV/0!	-	-	-	-	-	-
Rental Income	3,120	3,057	63	2.06%	12,778	9,658	3,120	3,120	2,548	2,548
Sales Proceeds	-	-	-	#DIV/0!	-	-	-	-	-	-
<b>Total Revenues</b>	<b>3,120</b>	<b>3,057</b>	<b>63</b>	<b>2.06%</b>	<b>12,778</b>	<b>9,658</b>	<b>3,120</b>	<b>3,120</b>	<b>2,548</b>	<b>2,548</b>
<b>Operating Expenses</b>										
Community Garden	-	-	-	#DIV/0!	750	750	-	-	-	-
Cassidy Ridge Purchase	279,442	-	279,442	#DIV/0!	(1)	(279,443)	-	-	-	-
HA Consultant	-	-	-	#DIV/0!	-	-	4,900	-	-	-
RHA Funding	50,000	50,000	-	0.00%	107,388	57,388	50,000	44,250	-	-
Town Owned Properties	10,949	10,270	679	6.61%	5,000	(5,949)	10,548	9,224	9,205	9,205
Density bank	8,856	11,013	(2,157)	-19.59%	20,000	11,144	8,856	8,856	8,856	8,856
<b>Total Operating Expenses</b>	<b>349,247</b>	<b>71,283</b>	<b>277,964</b>	<b>389.94%</b>	<b>133,137</b>	<b>(216,110)</b>	<b>74,304</b>	<b>62,330</b>	<b>18,061</b>	<b>18,061</b>
Surplus / Deficit	(346,127)	(68,226)	277,901	-407.32%	(120,359)	225,768	(71,184)	(59,210)	(15,513)	(15,513)
<b>Other Sources and Uses</b>										
Transfer (To) From MAP	-	-	-	#DIV/0!	(60,000)	-	-	-	-	-
Transfer (To) From General Fund - Sales Tax	216,180	222,047	(5,867)	-2.64%	480,777	264,597	210,363	197,581	193,392	193,392
Transfer (To) From Capital Projects Fund (1)	-	-	-	#DIV/0!	-	-	-	-	-	-
Transfer (To) From General Fund Housing Office	-	-	-	#DIV/0!	(19,808)	-	-	-	-	-
<b>Total Other Sources and Uses</b>	<b>216,180</b>	<b>222,047</b>	<b>(5,867)</b>	<b>-2.64%</b>	<b>400,969</b>	<b>264,597</b>	<b>210,363</b>	<b>197,581</b>	<b>193,392</b>	<b>193,392</b>
Surplus / Deficit	\$ (129,947)	\$ 153,821	\$ 283,768	184.48%	\$ 280,610	\$ 490,365	\$ 139,179	\$ 138,371	\$ 177,879	\$ 177,879
<b>Beginning Fund Equity Balance</b>	<b>\$ 1,504,952</b>	<b>\$ 1,504,952</b>	<b>\$ -</b>							
<b>Ending Equity Fund Balance</b>	<b>\$ 1,375,005</b>	<b>\$ 1,658,773</b>	<b>\$ (283,768)</b>							

Expenses consist of HOA dues, RHA contribution, maintenance and utilities on town owned property and the Cassidy Ridge unit purchase.

**Town of Mountain Village Monthly Revenue and Expenditure Report**

**March 2018**

	2018						2017	2016	2015
	Actual YTD	Budget YTD	Budget Vary (\$)	Budget Var (%)	Annual Budget	Budget Balance	Actual	Actual	Actual
<b>Village Court Apartments</b>									
<b>Operating Revenues</b>									
Rental Income	\$ 572,160	\$ 561,943	\$ 10,217	2%	\$ 2,247,771	\$ 1,675,611	\$ 565,303	\$571,821	\$567,280
Other Operating Income	27,631	19,653	7,978	41%	79,260	51,629	21,470	15,996	19,639
Less: Allowance for Bad Debt	-	-	-	#DIV/0!	-	-	-	(1,917)	(2,501)
<b>Total Operating Revenue</b>	<b>599,792</b>	<b>581,596</b>	<b>18,196</b>	<b>3%</b>	<b>2,327,031</b>	<b>1,727,239</b>	<b>586,773</b>	<b>585,900</b>	<b>584,418</b>
<b>Operating Expenses</b>									
Office Operations	45,833	54,177	8,344	15%	202,718	156,885	34,797	48,735	43,633
General and Administrative	85,294	93,379	8,085	9%	121,435	36,141	102,313	85,045	90,310
Utilities	102,385	103,555	1,170	1%	395,945	293,560	106,001	104,501	104,666
Repair and Maintenance	91,293	99,946	8,653	9%	411,862	320,569	106,739	108,257	98,102
Major Repairs and Replacement	31,373	25,903	(5,470)	-21%	108,817	77,444	71,260	24,652	27,510
Contingency	-	-	-	0%	12,288	12,288	-	-	-
<b>Total Operating Expenses</b>	<b>356,179</b>	<b>376,960</b>	<b>20,781</b>	<b>6%</b>	<b>1,253,065</b>	<b>896,886</b>	<b>421,110</b>	<b>371,190</b>	<b>364,221</b>
<b>Surplus / (Deficit) After Operations</b>	<b>243,613</b>	<b>204,636</b>	<b>38,977</b>	<b>19%</b>	<b>1,073,966</b>		<b>165,663</b>	<b>214,710</b>	<b>220,197</b>
<b>Non-Operating (Income) / Expense</b>									
Investment Earning	(823)	(8)	814	9751%	60	883	(25)	(18)	(18)
Debt Service, Interest	97,284	98,635	1,352	1%	394,541	297,257	100,208	104,388	106,185
Debt Service, Fees	-	-	-	#DIV/0!	-	-	-	-	2,750
Debt Service, Principal	-	-	-	#DIV/0!	393,738	393,738	-	-	-
<b>Total Non-Operating (Income) / Expense</b>	<b>96,461</b>	<b>98,627</b>	<b>2,166</b>	<b>2%</b>	<b>788,339</b>	<b>691,878</b>	<b>100,184</b>	<b>104,370</b>	<b>108,917</b>
<b>Surplus / (Deficit) Before Capital</b>	<b>147,152</b>	<b>106,009</b>	<b>41,143</b>	<b>39%</b>	<b>285,627</b>		<b>65,479</b>	<b>110,340</b>	<b>111,280</b>
Capital Spending	5,670	-	(5,670)	#DIV/0!	-	(5,670)	128	-	-
<b>Surplus / (Deficit)</b>	<b>141,482</b>	<b>106,009</b>	<b>35,473</b>	<b>33%</b>	<b>285,627</b>		<b>65,351</b>	<b>110,340</b>	<b>111,280</b>
<b>Other Sources / (Uses)</b>									
Transfer (To)/From General Fund	(27,320)	(27,320)	-	0%	(109,282)	(109,282)	(28,041)	(27,153)	(28,271)
Sale of Assets	-	-	-	0%	-	-	2,068	-	-
Grant Revenues	-	-	-	0%	-	-	-	-	-
Transfer From AHDF	-	-	-	0%	-	27,320	-	-	-
<b>Total Other Sources / (Uses)</b>	<b>(27,320)</b>	<b>(27,320)</b>	<b>-</b>	<b>0%</b>	<b>(109,282)</b>	<b>27,320</b>	<b>(25,973)</b>	<b>(27,153)</b>	<b>(28,271)</b>
<b>Surplus / (Deficit)</b>	<b>114,161</b>	<b>78,689</b>	<b>35,473</b>	<b>45%</b>	<b>176,345</b>		<b>39,378</b>	<b>83,187</b>	<b>83,009</b>

Rent revenues exceeded budget 2% and are ahead of previous year. Other revenues are over budget 41% due mainly to laundry revenues and pet fees. Office operations are under budget 15%. Salaries and wages and worker's comp are under budget. General and administrative is under budget 9% due mainly to property insurance savings. Utilities are 1% under budget and 4% lower than last year, with budget savings mainly in electricity. Maintenance is under budget 9% due to personnel vacancies. MR&R is over budget 21% due to appliance purchases and window repair. Expenses include window repairs, carpet replacement, appliances, vinyl replacement, and common area improvements.

**Town of Mountain Village Monthly Revenue and Expenditure Report  
March 2018**

	2018						2017	2016	2015
	Actual YTD	Budget YTD	Budget Variance (\$)	Budget Variance (%)	Annual Budget	Budget Balance	Actual YTD	Actual YTD	Actual YTD
<b>Debt Service Fund</b>									
<b>Revenues</b>									
Abatements	\$ (53,221)	\$ -	\$ (53,221)	#DIV/0!	\$ -	\$ 53,221	\$ -	\$ -	\$ -
Contributions	-	-	-	#DIV/0!	201,450	201,450	-	-	-
Miscellaneous Revenue	-	-	-	#DIV/0!	-	-	-	-	-
Property Taxes	261,606	233,939	27,667	11.83%	552,059	290,453	1,475,759	1,396,152	1,405,951
Reserve/Capital/Liquidity Interest	1,086	464	622	133.99%	2,000	914	1,014	270	479
Specific Ownership Taxes	7,776	21,848	(14,072)	-64.41%	85,587	77,811	38,218	36,539	36,444
<b>Total Revenues</b>	<b>217,247</b>	<b>256,251</b>	<b>(39,004)</b>	<b>140.00%</b>	<b>841,096</b>	<b>623,849</b>	<b>1,514,991</b>	<b>1,432,961</b>	<b>1,442,874</b>
<b>Debt Service</b>									
<b>2001/2011 Bonds - Gondola - Paid by contributions from TMVOA and TSG</b>									
2001/2011 Bond Issue - Interest	-	-	-	#DIV/0!	86,650	86,650	-	-	-
2001/2011 Bond Issue - Principal	-	-	-	#DIV/0!	115,000	115,000	-	-	-
<b>2005 Bonds - Telluride Conference Center - (refunding portion)</b>									
2005 Bond Issue - Interest	-	-	-	#DIV/0!	-	-	-	-	-
2005 Bond Issue - Principal	-	-	-	#DIV/0!	-	-	-	-	-
<b>2006/2014 Bonds - Heritage Parking</b>									
2014 Bond Issue - Interest	-	-	-	#DIV/0!	256,225	256,225	1,056	-	-
2014 Bond Issue - Principal	-	-	-	#DIV/0!	275,000	275,000	250,000	-	-
<b>2007 Bonds - Water/Sewer (refunding 1997)</b>									
2007 Bond Issue - Interest	-	-	-	#DIV/0!	-	-	-	-	-
2007 Bond Issue - Principal	-	-	-	#DIV/0!	-	-	-	-	-
<b>2009 Bonds - Telluride Conference Center (refunding 1998 bonds)</b>									
2009 Bond Issue - Interest	-	-	-	#DIV/0!	-	-	-	-	-
2009 Bond Issue - Principal	-	-	-	#DIV/0!	-	-	-	-	-
<b>Total Debt Service</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>#DIV/0!</b>	<b>732,875</b>	<b>732,875</b>	<b>251,056</b>	<b>-</b>	<b>-</b>
Surplus / (Deficit)	217,247	256,251	(39,004)	-15.22%	108,221		1,263,935	1,432,961	1,442,874
<b>Operating Expenses</b>									
Administrative Fees	250	250	-	0.00%	16,230	15,980	250	250	500
County Treasurer Collection Fees	6,252	6,993	(741)	-10.60%	6,250	(2)	44,276	41,889	42,182
<b>Total Operating Expenses</b>	<b>6,502</b>	<b>7,243</b>	<b>(741)</b>	<b>-10.24%</b>	<b>22,480</b>	<b>15,978</b>	<b>44,526</b>	<b>42,139</b>	<b>42,682</b>
Surplus / (Deficit)	210,745	249,008	(38,263)	-15.37%	85,741		1,219,409	1,390,822	1,400,192
<b>Other Sources and Uses</b>									
Transfer (To) From General Fund	(7,776)	(21,848)	14,072	-64.41%	(85,587)	(77,811)	(38,218)	(36,539)	(36,444)
Transfer (To) From Other Funds (1)	-	-	-	#DIV/0!	-	-	-	-	-
Bond Premiums	-	-	-	#DIV/0!	-	-	-	-	-
Proceeds From Bond Issuance	-	-	-	#DIV/0!	-	-	-	-	-
<b>Total Other Sources and Uses</b>	<b>(7,776)</b>	<b>(21,848)</b>	<b>14,072</b>	<b>-64.41%</b>	<b>(85,587)</b>	<b>(77,811)</b>	<b>(38,218)</b>	<b>(36,539)</b>	<b>(36,444)</b>
Surplus / (Deficit)	\$ 202,969	\$ 227,160	\$ (24,191)	-10.65%	\$ 154		\$ 1,181,191	\$ 1,354,283	\$ 1,363,748
<b>Beginning Fund Balance</b>	<b>\$ 450,278</b>	<b>\$ 450,278</b>	<b>\$ -</b>						
<b>Ending Fund Balance</b>	<b>\$ 653,247</b>	<b>\$ 677,438</b>	<b>\$ (24,191)</b>						

2018 Financial Planning Management Summary\* - Qtr 1

\* This summary is a combined town revenue and expenditure summary not prepared in accordance with governmental budgeting and accounting standards, but rather to provide a summary look at the actual revenue and expenditures with debt service allocated to the appropriate fund or operation.

	Governmental Funds				Enterprise (Business-Type) Funds							Governmental Pass Through Funds Special Revenue Funds					
	General Fund	Vehicle Acquisition	Debt Service Fund	Capital Projects	Parking Services	Water/Sewer	Broadband	TCC	VCA	Affordable Housing Development Fund and Mortgage Assistance	Child Development Fund	Total	Percentage of Total	Tourism	Historical Museum	Gondola	
<b>Inflows</b>																	
Revenues	\$ 4,085,159	\$ -	\$ -	\$ -	\$ 110,100	\$ 837,237	\$ 532,121	\$ -	\$ 599,792	\$ 3,120	\$ 163,956	\$ 6,331,485		\$ 1,323,735	44,257	\$ 1,259,115	\$ 8,958,592
<b>Debt Service Income</b>																	
Property Tax (Income)	-	-	7,776	-	208,385	-	-	-	-	-	-	216,161		-	-	-	216,161
Other Income	-	-	-	-	1,086	-	-	-	823	-	-	1,909		-	-	-	1,909
<b>Total Debt Service Income</b>	-	-	7,776	-	209,471	-	-	-	823	-	-	218,070		-	-	-	218,070
<b>Inflow Subtotal (Revenues)</b>	<b>4,085,159</b>	<b>-</b>	<b>7,776</b>	<b>-</b>	<b>319,571</b>	<b>837,237</b>	<b>532,121</b>	<b>-</b>	<b>600,615</b>	<b>3,120</b>	<b>163,956</b>	<b>6,549,555</b>		<b>1,323,735</b>	<b>44,257</b>	<b>1,259,115</b>	<b>9,176,662</b>
<b>Other Sources and Uses (Inflows)</b>																	
Interfund Transfers In	171,810	206,816	-	10,238	-	-	-	32,131	-	216,180	-	637,175		-	-	-	637,175
Tap Fees	-	-	-	-	-	900	-	-	-	-	-	900		-	-	-	900
Sale of Assets	14,247	3,999	-	-	-	-	-	-	-	-	-	18,246		-	-	-	18,246
<b>Other Sources and Uses (Inflows) Total</b>	<b>186,057</b>	<b>210,815</b>	<b>-</b>	<b>10,238</b>	<b>-</b>	<b>900</b>	<b>-</b>	<b>32,131</b>	<b>-</b>	<b>216,180</b>	<b>-</b>	<b>656,321</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>656,321</b>
<b>Total Inflows</b>	<b>4,271,216</b>	<b>210,815</b>	<b>7,776</b>	<b>10,238</b>	<b>319,571</b>	<b>838,137</b>	<b>532,121</b>	<b>32,131</b>	<b>600,615</b>	<b>219,300</b>	<b>163,956</b>	<b>7,205,876</b>		<b>1,323,735</b>	<b>44,257</b>	<b>1,259,115</b>	<b>9,832,983</b>
<b>Outflows</b>																	
<b>Operating Expense</b>																	
Cable, Phone, and Internet Service Delivery Costs	-	-	-	-	-	-	277,078	-	-	-	-	277,078	8.19%	-	-	-	277,078
Consulting, Contract Labor, Professional Services	15,091	-	-	-	-	-	-	-	3,816	-	260	19,167	0.57%	-	-	-	19,167
Dues, Fees, and Licenses	27,880	-	-	-	-	347	564	25,542	34,405	17,819	210	106,767	3.15%	-	885	5,155	112,807
Environmental Projects	-	-	-	-	-	-	-	-	-	-	-	-	0.00%	-	-	-	-
Equipment and Vehicle Maintenance	32,274	-	-	-	-	6,341	3,418	-	-	-	-	42,033	1.24%	-	-	7,969	50,002
Fuel (Vehicles)	35,512	-	-	-	5,861	1,204	964	-	15	-	-	43,556	1.29%	-	-	696	44,252
Funding Support to Other Agencies/Programs	24,350	-	-	-	-	-	-	-	-	50,000	10,853	85,203	2.52%	597,863	43,372	-	726,438
Government Buildings and Facility Expense	27,763	-	-	-	10,658	119	299	2,017	48,771	1,743	9,694	101,064	2.99%	-	-	4,856	105,920
Information Technology	152,580	-	-	-	1,223	-	19,751	-	90	-	-	173,644	5.13%	-	-	-	173,644
Legal Services	98,391	-	-	-	-	3,159	-	-	882	-	-	102,432	3.03%	-	-	1,210	103,642
Marketing, Public Communications, and Regional Promotion	38,621	-	-	-	303	-	29	-	-	-	-	38,953	1.15%	687,709	-	-	726,662
Other Expenses	129,205	-	-	-	6,183	-	-	-	1,362	-	1,040	137,790	4.07%	-	-	15,729	153,519
Personnel Expense	1,133,689	-	-	-	28,501	115,211	87,319	87,319	87,664	-	116,354	1,568,738	46.35%	-	-	701,540	2,270,278
Property Insurance	102,541	-	-	-	-	15,264	4,039	-	56,045	-	-	177,889	5.26%	-	-	31,747	209,636
Road, Bridge, and Parking Lot Paving, Striping, and Repair	862	-	-	-	-	-	-	-	-	-	-	862	0.03%	-	-	-	862
Supplies, Parts and Materials	36,412	-	-	-	1,108	10,287	933	-	17,834	-	2,347	68,921	2.04%	-	-	57,695	126,616
Travel, Education, and Conferences	15,412	-	-	-	-	767	-	-	537	-	850	17,566	0.52%	-	-	7,482	25,048
Utilities-W/S, Electric, Natural Gas, Internet, Communications	110,911	-	-	-	852	127,498	6,269	-	95,259	243	2,381	343,413	10.15%	-	-	102,953	446,366
Water/Sewer Service Delivery	-	-	-	-	-	79,415	-	-	-	-	-	79,415	2.35%	-	-	-	79,415
<b>Total Expense</b>	<b>1,981,494</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>54,689</b>	<b>359,612</b>	<b>400,663</b>	<b>27,559</b>	<b>346,680</b>	<b>69,805</b>	<b>143,989</b>	<b>3,384,491</b>	<b>146.35%</b>	<b>1,285,572</b>	<b>44,257</b>	<b>937,032</b>	<b>5,651,353</b>
<b>Capital and Major Repairs</b>	<b>7,115</b>	<b>163,088</b>	<b>-</b>	<b>10,238</b>	<b>-</b>	<b>28,382</b>	<b>-</b>	<b>4,572</b>	<b>5,670</b>	<b>279,442</b>	<b>-</b>	<b>498,507</b>		<b>-</b>	<b>-</b>	<b>308,554</b>	<b>807,061</b>
<b>Debt Service Expense</b>																	
Principal/Interest	-	-	-	-	-	-	-	-	97,284	-	-	97,284		-	-	-	97,284
County Treasurer and Trustee Fees	-	-	-	-	6,502	-	-	-	-	-	-	6,502		-	-	-	6,502
<b>Total Debt Service Costs</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6,502</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>97,284</b>	<b>-</b>	<b>-</b>	<b>103,786</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>103,786</b>
<b>Outflows (Expenses) Subtotal</b>	<b>1,988,609</b>	<b>163,088</b>	<b>-</b>	<b>10,238</b>	<b>61,191</b>	<b>387,994</b>	<b>400,663</b>	<b>32,131</b>	<b>449,634</b>	<b>349,247</b>	<b>143,989</b>	<b>3,986,784</b>		<b>1,285,572</b>	<b>44,257</b>	<b>1,245,586</b>	<b>6,562,200</b>
<b>Other Sources and Uses (Outflows)</b>																	
Interfund Transfers Out	465,365	-	7,776	-	7,606	38,102	39,314	-	27,320	-	-	585,483		38,163	-	13,529	637,175
Other	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
<b>Other Sources and Uses Total (Outflows)</b>	<b>465,365</b>	<b>-</b>	<b>7,776</b>	<b>-</b>	<b>7,606</b>	<b>38,102</b>	<b>39,314</b>	<b>-</b>	<b>27,320</b>	<b>-</b>	<b>-</b>	<b>585,483</b>		<b>38,163</b>	<b>-</b>	<b>13,529</b>	<b>637,175</b>
<b>Total Outflows</b>	<b>2,453,974</b>	<b>163,088</b>	<b>7,776</b>	<b>10,238</b>	<b>68,797</b>	<b>426,096</b>	<b>439,977</b>	<b>32,131</b>	<b>476,954</b>	<b>349,247</b>	<b>143,989</b>	<b>4,572,267</b>		<b>1,323,735</b>	<b>44,257</b>	<b>1,259,115</b>	<b>7,199,375</b>
<b>Net Budget Surplus (Deficit)</b>	<b>1,817,242</b>	<b>47,727</b>	<b>-</b>	<b>-</b>	<b>250,774</b>	<b>412,041</b>	<b>92,144</b>	<b>0</b>	<b>123,661</b>	<b>(129,947)</b>	<b>19,967</b>	<b>2,633,608</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>2,633,607</b>
<b>Outstanding Debt (end of year)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 7,110,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 12,275,527</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 19,385,527</b>		<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,255,000</b>	<b>\$ 21,640,527</b>

Memorandum

May 10, 2018

TO: Town Council

FROM: Kevin Swain

RE: Town Council Budget 2019 Goals and Initiatives

## **INTRODUCTION**

As the 2019 Budget adoption process has now begun the next step in getting to adoption is for the Town Council to establish its broader funding goals and initiatives for projects and programs in 2019. As this is a work-session no action will be taken. Staff recommends that Council use this time to revisit and refine the budget goals and initiatives listed below for guidance to staff to address in the drafting of the budget.

## **2019 TOWN COUNCIL BUDGET GOALS and INITIATIVES**

In April the Town Council Budget and Finance Committee met and discussed the 2019 Budget and its goals for that.

- Forecast sales tax revenue growth conservatively (3%) and in anticipation of the expected impact of the Gallagher Amendment on residential property valuation project a 10% decline in property tax revenue.
- The bulk award of grant funds should be held to a total amount not exceeding the grant funding in the 2018 budget.
- Using the most current information provided by the Town of Telluride continue to plan for the financial impact of the wastewater treatment plant upgrade and expansion. This includes appropriate adjustments to the Town water and sewer utility customer rates.
- Continue to address the need for affordable employee housing by funding an expansion project at VCA.
- Fund the implementation of the Town's cyber security plan expected to be developed from the consulting project for such a plan to be conducted in 2018.
- Begin a phased implementation of the Town Hall Subarea Master Plan including relocating Mountain Village Boulevard and enhance the Elk Lake Park.
- Continue Village Center vibrancy planning (see 3<sup>rd</sup> bullet point below)

For 2019 and beyond other financial guidelines and funding needs from previous budgets that the Town Council may wish to also establish for the budget include the following:

- Maintain Town reserves at or above the 35% policy practiced by previous Town Councils.
- Pay down debt when it is feasible to do so.
- Investments in projects and programs to keep the town's economy stable and diverse.
- Funding for projects and programs that protect the natural environment in the Town.
- Maintain Town infrastructure to a high standard of repair and condition.
- Continue funding trails and recreation in Mountain Village.



**PLANNING AND DEVELOPMENT SERVICES  
DEPARTMENT**  
455 Mountain Village Blvd.  
Mountain Village, CO 81435  
(970) 369-8250

**Agenda Item No. 11**

**TO:** Town Council  
**FROM:** Michelle Haynes, Planning and Development Services Director  
**FOR:** Meeting of May 17, 2018  
**DATE:** May 8, 2018  
**RE:** First Reading, Setting of a Public Hearing and Council Vote on an Ordinance Approving a Community Development Code (CDC) Amendment to CDC Section 17.5.6.C.3. Roof Material pursuant to CDC Section 17.1.7 Amendments to the Community Development Code

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**BACKGROUND**

The department seeks to make amendments to the Roof Material Section of the Community Development Code (CDC) found at CDC Section 17.5.6.C.3.

**ATTACHMENT**

- Ordinance with Exhibit A. CDC Redline of the Roof Material Section
- Clean version of the CDC amendment

**HISTORY**

Staff and the DRB re-initiated the village center roof tile discussion in December of 2017 to address two primary issues: 1) Burnt sienna concrete tile from Westile was no longer being manufactured 2) Consideration of expanding roof materials in the Village Center. The DRB held the following meetings regarding the roof material discussion:

- December 12, 2017 special DRB roof material meeting
- February 22, 2018 special DRB and Town Council roof material and village center design theme meeting
- March 1, 2018 worksession
- March 29, 2018 worksession
- May 3, 2018 A review and recommendation to Town Council regarding amendments to the CDC regarding Village Center roofing requirements.

The DRB also supported an information webpage for building owners and HOA's in the Village Center found at the following link on the Town's website:

<https://townofmountainvillage.com/governing/building-development/long-range-planning/roofing-information/>

**DISCUSSION**

The proposed CDC amendment is exhibit A to this memo. New language is underlined in green and red. Removed language is shown as a strike through.

## **INTENT**

In summary the proposed CDC amendment achieves the following:

### **Outside of the Village Center zone district**

- Add bonderized metal as a permitted material.
- Add brown patina copper as a permitted roof material.
- Remove verde (green) as a permitted patina.
- Remove galvanized corrugated or standing seam metal (not rusted or reflective) with specific approval.
- Add solar roof tiles with specific approval.

### **Village Center zone district**

1. Expand roof material options with a class 3 application and DRB review to include:
  - a. Burnt sienna concrete tile (note: currently this is the only allowed material).
  - b. Earth tone concrete tile compatible with burnt sienna tile in color and texture.
  - c. Brown patina copper
  - d. Standing seam or bonderized metal (dark grey or black) (not rusted)
  - e. Zinc
  - f. Add solar roof tiles.
  - g. Add "some variation of roof material color is permissible by specific DRB approval as long as it is contextually compatible in design, color, theme and durability."
2. Allow for modifications to roof materials on dormers and secondary roof forms to be approved by staff through a class 1 development application.
  - a. Allow for bevel edged corrugated (not rusted) metal to be approved.

## **ANALYSIS**

The proposed CDC roof material amendment allows for more permitted materials in and outside of the Village Center. Creates a larger list of materials approvable by the DRB in the Village Center as well. With considerable analysis the DRB recommended by unanimous approval the CDC amendment under your review at their May 3, 2018 DRB meeting.

The DRB would next like to address creating specific CDC amendments regarding Village Center Design Theme and Design Regulations within the next 18 months and as part of the Village Center Subarea planning efforts.

## **PROPOSED MOTION**

Staff recommends the Town Council approve on first reading on an ordinance the CDC amendment as attached with the following proposed motion:

*I move to approval on first reading of an ordinance an amendment to CDC Section 17.5.6.C.3. Roof Materials attached as exhibit A to the ordinance and to direct the Town Clerk to set a public hearing for June 14, 2018.*

*This motion is based on the evidence and testimony provided at a public hearing held on May 17, 2018, with notice of such hearing as required by the Community Development Code.*

**ORDINANCE NO. 2018-\_\_**

**AN ORDINANCE AMENDING THE COMMUNITY DEVELOPMENT CODE (CDC) AT SECTION 17.5.6.C.3, AMENDING THE ROOF MATERIAL SECTION**

**RECITALS**

- A. The Town of Mountain Village (the “Town”) is a legally created, established, organized and existing Colorado municipal corporation under the provisions of Article XX of the Constitution of the State of Colorado (the “Constitution”) and the Home Rule Charter of the Town (the “Charter”).
- B. Pursuant to the Constitution, the Charter, the Colorado Revised Statutes and the common law, the Town has the authority to regulate the use and development of land and to adopt ordinances and regulations in furtherance thereof.
- C. The Town Council may amend the CDC, including the Roof Material Section in the CDC, from time to time.

**NOW THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF MOUNTAIN VILLAGE, COLORADO AS FOLLOWS:**

**Section 1. Amendment of Community Development Code**

- A. The Town of Mountain Village Community Development Code, section 16.5.6.C.3 is hereby amended and replaced as set forth in Exhibit A which is attached hereto and incorporated herein.
- B. The Planning Division is directed to codify the amendments in Exhibit A into the CDC.
- C. The Planning Division may correct typographical and formatting errors in the amendments or the adopted CDC.

**Section 2. Ordinance Effect**

- D. This Ordinance shall have no effect on pending litigation, if any, and shall not operate as an abatement of any action or proceeding now pending under or by virtue of the ordinances repealed or amended as herein provided and the same shall be construed and concluded under such prior ordinances.
- E. All ordinances, of the Town, or parts thereof, inconsistent or in conflict with this Ordinance, are hereby repealed, replaced and superseded to the extent only of such inconsistency or conflict.

**Section 3. Severability**

The provisions of this Ordinance are severable and the invalidity of any section, phrase, clause or portion of this Ordinance as determined by a court of competent jurisdiction shall not affect the validity or effectiveness of the remainder of this Ordinance.

**Section 4. Effective Date**

This Ordinance shall become effective on \_\_\_\_\_, 2018.

**Section 5. Public Hearing**

A public hearing on this Ordinance was held on the 14<sup>th</sup> of June, 2018 in the Town Council

Chambers, Town Hall, 455 Mountain Village Blvd, Mountain Village, Colorado 81435.

**INTRODUCED, READ AND REFERRED to public hearing before the Town Council of the Town of Mountain Village, Colorado on the 14<sup>th</sup> of June, 2018**

**TOWN OF MOUNTAIN VILLAGE:**

**TOWN OF MOUNTAIN VILLAGE,  
COLORADO, A HOME-RULE  
MUNICIPALITY**

By: Laila Benitez, Mayor

ATTEST:

\_\_\_\_\_  
Jackie Kennefick, Town Clerk

**HEARD AND FINALLY ADOPTED by the Town Council of the Town of Mountain Village, Colorado this 14<sup>th</sup> of June, 2018.**

**TOWN OF MOUNTAIN VILLAGE:**

**TOWN OF MOUNTAIN VILLAGE,  
COLORADO, A HOME-RULE  
MUNICIPALITY**

By: Laila Benitez, Mayor

ATTEST:

\_\_\_\_\_  
Jackie Kennefick, Town Clerk

Approved As To Form:

\_\_\_\_\_  
Jim Mahoney, Assistant Town Attorney

I, Jackie Kennefick, the duly qualified and acting Town Clerk of the Town of Mountain Village, Colorado ("Town") do hereby certify that:

1. The attached copy of Ordinance No. \_\_\_\_\_ ("Ordinance") is a true, correct and complete copy thereof.

2. The Ordinance was introduced, read by title, approved on first reading with minor amendments and referred to public hearing by the Town Council the Town ("Council") at a regular meeting held at Town Hall, 455 Mountain Village Blvd., Mountain Village, Colorado, on \_\_\_\_\_, 2018, by the affirmative vote of a quorum of the Town Council as follows:

Council Member Name	"Yes"	"No"	Absent	Abstain
Laila Benitez, Mayor				
Dan Caton, Mayor Pro-Tem				
Dan Jansen				
Bruce MacIntire				
Patrick Berry				
Natalie Binder				
Jack Gilbride				

3. After the Council's approval of the first reading of the Ordinance, notice of the public hearing, containing the date, time and location of the public hearing and a description of the subject matter of the proposed Ordinance was posted and published in the Telluride Daily Planet, a newspaper of general circulation in the Town, on \_\_\_\_\_, 2018 in accordance with Section 5.2b of the Town of Mountain Village Home Rule.

4. A public hearing on the Ordinance was held by the Town Council at a regular meeting of the Town Council held at Town Hall, 455 Mountain Village Blvd., Mountain Village, Colorado, on June 14, 2018. At the public hearing, the Ordinance was considered, read by title, and approved without amendment by the Town Council, by the affirmative vote of a quorum of the Town Council as follows:

Council Member Name	"Yes"	"No"	Absent	Abstain
Laila Benitez, Mayor				
Dan Caton, Mayor Pro-Tem				
Dan Jansen				
Bruce MacIntire				
Patrick Berry				
Natalie Binder				
Jack Gilbride				

5. The Ordinance has been signed by the Mayor, sealed with the Town seal, attested by me as Town Clerk, and duly numbered and recorded in the official records of the Town.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the Town this \_\_\_\_\_ day of \_\_\_\_\_, 2018.

\_\_\_\_\_  
Jackie Kennefick, Town Clerk

(SEAL)

3. Roof Material

- a. All roofing material shall be of a type and quality that will withstand high alpine climate conditions.
- b. The review authority may require class A roofing materials as a fire mitigation measure.
- c. Permitted roof material outside the Village Center include:

Metal roof material limited to the following: Rustled, black or gray standing seam-, bonderized or corrugated metal (not reflective);

~~i.~~ Zinc;

~~ii.i.~~ Minimum 1/2" slate; and

~~ii. iv.~~ Synthetic materials that have been approved by the Design Review Board for general use after having been used on individual projects and the Board makes the finding that the material has proven to meet the standards stated below. Copper;

~~(a)~~ Copper shall only be considered when it is proposed with a brown or verde brown-patina finish, where visible except for the Village Center where a verde patina finish is required.

~~(b)~~ The brown patina copper finish shall be completed prior to issuing a certificate of occupancy.

~~d.a.~~ Village Center roofing material shall be concrete tile or synthetic materials that emulate concrete tile of the color burnt sienna except for special copper accent roofs that shall require specific approval of the DRB.

~~e.d.~~ The following roofing materials outside of the Village Center may shall be approved by the DRB as a specific approval that is processed as a class 3 development application if the DRB finds the roofing material is consistent with the town design theme and the applicable Design Regulations:

~~i.~~ Copper;

~~(a)~~ Copper shall only be considered when it is proposed with a brown or verde patina finish where visible except for the Village Center where a verde patina finish is required.

~~(b)~~ The copper finish shall be completed prior to issuing a certificate of occupancy.

~~ii.~~ Galvanized corrugated or standing seam metal (not rusted or reflective);

~~iii.i.~~ Synthetic roofing material that accurately emulates wood shake, concrete and slate tile or any other roofing material permitted or existing in Mountain Village.

(a) Synthetic roofing material shall be:

(i.) Durable

(ii.) High strength, both material and shape;

- (iii.) Low absorption or permeability;
- (iv.) High freeze/thaw damage resistance;
- (v.) Color throughout the tile (not surface applied); and
- ~~(vi.)~~ High-quality design that fits within the architectural context of the building and the architectural context of the surrounding area.

~~ii.~~ Solar roof tiles so long as they are contextually compatible in design, color, theme and durability.

~~e.~~ Village Center roofing material will require a class 3 development application and building specific design review. The following roof materials shall be approved by the DRB if the DRB finds the roofing material is consistent with the town design theme and applicable Design Regulations:

~~i.~~ Burnt sienna concrete tile, shall be concrete tile or synthetic materials that emulate concrete tile of the color burnt sienna except for special copper accent roofs that shall require specific approval of the DRB.

~~ii.~~ Earth tones compatible with burnt sienna concrete tile in color and texture.

~~iii.~~ Brown patina copper

~~iv.~~ Standing seam or bonderized metal (dark grey or black) (not rusted)

~~v.~~ Zinc

~~vi.~~ Solar roof tiles so long as they are contextually compatible in design, color, theme and durability.

~~vii.~~ Some variation of roof material color is permissible by specific DRB approval as long as it is contextually compatible in design, color, theme and durability.

~~f.~~ Modification to roof materials on dormers and secondary roof forms may be reviewed as a class 1 development application.

~~i.~~ Permitted roof materials are listed in e.i-vii above.

~~ii.~~ bevel edged corrugated (not rusted) metal may be approved so long as it is contextually compatible in design, color, theme and durability.

~~(vi.)~~

~~f.g.~~ The following requirements are applicable to all roofing:

- i. Metal roofing surface shall not reflect an excessive amount of light when viewed against direct sunlight.
- ii. Unless the DRB grants a specific approval for a non-rusted metal roof, corrugated and standing seam roofing materials shall be pre-treated to produce rusting prior to placement on the roof, and prior to the issuance of a certificate of occupancy.

~~g.h.~~ The installation or re-installation of wood shakes, glazed tile and asphalt shingles is prohibited, except for the repair or replacement of wood shake roof areas that are 25% or less of the total roof surface area.

~~h.i.~~ Roof flashing, Gutters Downspouts and Similar Hardware:

- i. In the Village Center, all exposed metal flashing, gutters, downspouts and other roof hardware shall be copper except when ~~either~~ structural requirements dictate the use of stronger materials such as for snow fences.
- ii. In all other areas, other metal guttering besides copper may be approved by the review authority to allow it to match roofing material, such as the use of rusty steel guttering on a rusty metal roof.
- iii. When steel or iron are used, they shall be either rusted to match the roof or finished with a baked on enamel paint or, subject to the prior approval of the review authority, a silicon modified alloy or special epoxy paint system of a color approved by the review authority.

**3. Roof Material**

- a. All roofing material shall be of a type and quality that will withstand high alpine climate conditions.
- b. The review authority may require class A roofing materials as a fire mitigation measure.
- c. Permitted roof material outside the Village Center include:
  - i. Metal roof material limited to the following: rusted, black or gray standing seam, bonderized or corrugated metal (not reflective);
  - ii. Zinc;
  - iii. Minimum 1/2" slate; and
  - iv. Copper;
    - (a) Copper shall only be considered when it is proposed with a brown patina finish.
    - (b) The copper finish shall be completed prior to issuing a certificate of occupancy.
- d. The following roofing materials outside of the Village Center shall be approved by the DRB as a specific approval that is processed as a class 3 development application if the DRB finds the roofing material is consistent with the town design theme and the applicable Design Regulations:
  - i. Synthetic roofing material that accurately emulates wood shake, concrete and slate tile or any other roofing material permitted or existing in Mountain Village.
    - (a) Synthetic roofing material shall be:
      - (i.) Durable
      - (ii.) High strength, both material and shape;
      - (iii.) Low absorption or permeability;
      - (iv.) High freeze/thaw damage resistance;
      - (v.) Color throughout the tile (not surface applied); and
      - (vi.) High-quality design that fits within the architectural context of the building and the architectural context of the surrounding area.
    - ii. Solar roof tiles so long as they are contextually compatible in design, color, theme and durability.
- e. Village Center roofing material will require a class 3 development application and building specific design review. The following roof materials shall be approved by the DRB if the DRB finds the roofing material is consistent with the town design theme and applicable Design Regulations:
  - i. Burnt sienna concrete tile
  - ii. Earth tones compatible with burnt sienna concrete tile in color and texture
  - iii. Brown copper
  - iv. Standing seam or bonderized metal (dark grey or black) (not rusted)
  - v. Zinc
  - vi. Solar roof tiles so long as they are contextually compatible in design,

- theme and durability.
- vii. Some variation of roof material color is permissible by specific DRB approval as long as it is contextually compatible in design, color, theme and durability.
- f. Modification to roof materials on dormers and secondary roof forms may be reviewed as a class 1 development application.
  - i. Permitted roof materials are listed in e.i-vii above.
  - ii. Bevel edged corrugated (not rusted) metal may be approved so long as it is contextually compatible in design, color, theme and durability.
- g. The following requirements are applicable to all roofing:
  - i. Metal roofing surface shall not reflect an excessive amount of light when viewed against direct sunlight.
  - ii. Unless the DRB grants a specific approval for a non-rusted metal roof, corrugated and standing seam roofing materials shall be pre-treated to produce rusting prior to placement on the roof, and prior to the issuance of a certificate of occupancy.
- h. The installation or re-installation of wood shakes, glazed tile and asphalt shingles is prohibited, except for the repair or replacement of roof areas that are 25% or less of the total roof surface area.
- i. Roof flashing, Gutters Downspouts and Similar Hardware:
  - i. In the Village Center, all exposed metal flashing, gutters, downspouts and other roof hardware shall be copper except when structural requirements dictate the use of stronger materials such as for snow fences.
  - ii. In all other areas, other metal guttering besides copper may be approved by the review authority to allow it to match roofing material, such as the use of rusty steel guttering on a rusty metal roof.
  - iii. When steel or iron are used, they shall be either rusted to match the roof or finished with a baked on enamel paint or, subject to the prior approval of the review authority, a silicon modified alloy or special epoxy paint system of a color approved by the review authority.

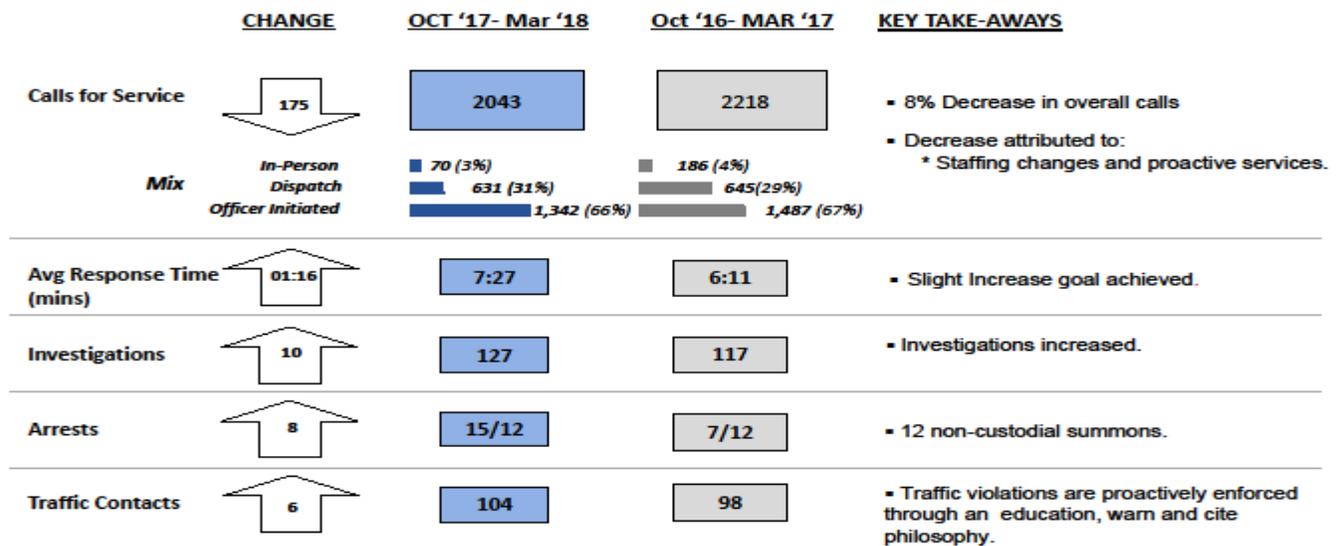


## Mountain Village Police Department Semi Annual Report to Town Council *WINTER: October 2017 through March 2018*

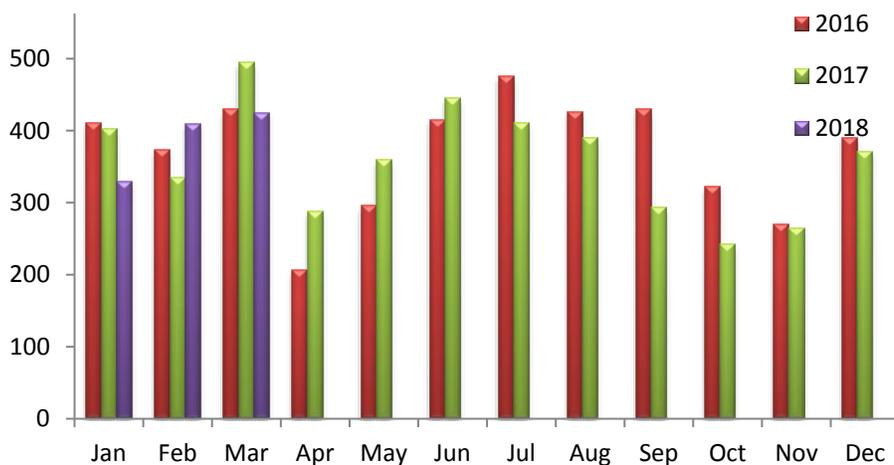
### SUMMARY

- Overall service calls are down 8% from the prior winter season.
- Sworn staff achieved Peace Officer Standards and Training (POST) mandated yearly inservice training
- Staffing changes included hiring two patrol officers and losing one.
- 26 contracting/overtime shifts and 44 shifts covered by administration.
- Held one - Coffee with a Cop events, building community relations.
- Staff performance included two complaints not performance issues but contact concens
- Community Services officers attended statwide certification training

### KEY SUMMARY POINTS



### ANNUAL ACTIVITY PATTERNS



- Seasonal trends illustrate consistencies in calls for service;
- Officer initiated pro-active stewardship increased in some areas and decreased in others.
- Continued enforcement in Skier Safety Act alcohol related offenses.

MVPD Dashboard: Winter 2017/2018

**Mountain Village Police Department**  
**Semi Annual Report to Town Council**  
**WINTER: October 2017 through March 2018**

**POLICE DEPARTMENT MISSION**

*The delivery of quality service, both timely and courteous, shall be the mandate that guides the members of the Mountain Village Police Department, always with the intent of solving problems for those who ask for assistance. The Mountain Village Police pledge is to embrace all the citizens in solving problems, both routine to law enforcement and those unique to the community. Mountain Village Police will solicit citizen input, ideas and guidance, for it is only through this relationship that we truly meet or exceed their needs.*

**DEPARTMENT GOALS**

- ❖ Maintain a high level of public trust and confidence with the community
- ❖ Maintain a high level of visibility while on pro-active police patrols
- ❖ Maintain a high level of community oriented policing by conducting quality foot patrols
- ❖ Respond to calls for service in a courteous, professional, and timely manner

**PERFORMANCE MEASURES**

- ✓ Citizen engagement that is generated from MVPD community outreach.
- ✓ Officers patrol by vehicle no less than 30 miles per shift, all roads patrolled as least once per 10 hour shift
- ✓ Officers patrol the business areas on foot an average of 2 hours per shift
- ✓ Calls for service are handled within 8 minutes of origination, with generation of little or no complaints

**PERFORMANCE REPORT**

**A. Regularly scheduled community events**

We have initiated varying community engagements (National Night Out, Coffee with a Cop, Foot Patrols) allowing citizen input relating to performance feedback.

**B. Patrol no less than 30 miles per shift**

Staff performance exceeded the expectation with a six-month **average of 49 miles** per shift.  
*Reference Appendix "A" Chart 1.*

**C. Patrol on foot as average of 2 hours per shift**

Foot patrols in the core areas met our goal in the season reflecting steady increases from last year.  
*Reference Appendix "A" Chart 2.*

**D. Calls for service, within 8 minutes**

MVPD average response time this reporting period is **7 minutes 27 seconds** from the time an officer receives the call from dispatch until the officer arrives on scene. Last season this was **6 minutes 11 seconds**. This reported response time is for criminal activity and priority response calls; other calls for service response may be extended depending on officer availability and the type of call. MVPD experienced no complaints on response time for service calls.

**E. Call Volume**

Steady reporting trends in cases requiring investigations. This period MVPD received **2,043 calls for service** as compared to 2,218 this same reporting period last year. Variations reflect staffing changes, training new officers and losing 1 along with shift coverages by Chief, Lieutenant, and contracted officer.

*Reference Annual Activity Patterns page 1.*

**Mountain Village Police Department**  
**Semi Annual Report to Town Council**  
**WINTER: October 2017 through March 2018**

**F. Call Tyles and Categories**

Every call was tracked by the type of service request and segregated into categories of Protect and Service.

- Protect encompasses 26 categories that include criminal investigations that often are violations of state, county, and municipal laws. *Reference Appendix "A" Chart 3.*
- Service categories include a larger portion of Community Oriented Policing activities; administrative services (fingerprinting), assisting other agencies (police, medical, and fire), animal problems, motorist/citizen assists, and civil matters that encompass 23 types of service. *Reference Appendix "A" Chart 4.*

**LAW ENFORCEMENT ACTIVITY**

**A. Monthly Summary Reports**

The activity that is reported monthly to Town Council (BaGAR) includes data from both Protect and Service categories; these reported statistics include this six month reporting period and demonstrate where staff services were required. *Reference Appendix "A" Chart 5.*

**B. Call Initiator Categories**

Calls for service are tracked to identify how they are received and/or initiated revealing MVPD staff maintained high levels of self-initiated activity also referred to as proactive patrols and services. Officer initiated 66% of the calls for service maintaining high visibility that deters criminal activity and promotes community oriented policing. *Reference Appendix "A" Chart 6.*

**C. Traffic Enforcement**

Traffic details and enforcement are largely performed on a three tier philosophy allowing MVPD officers to engage community members and visitors using an education approach that can include warnings. The statistics reflect the importance in maintaining traffic patrols in pursuit of safer roadways by the variation in types of violations. *Reference Appendix "A" Chart 7.*

**DEPARTMENT HIGHLIGHTS**

- For the third year in a row, MPVD Staff attended Colorado Peace Officers Standards and Training (POST) required annual in-service training by invite to the Grand Junction PD. All training is taught by subject matter experts. The only cost to us is meals and lodging for three days per officer
- Staff participated in 7<sup>th</sup> Judicial District Critical Incident Investigation team meetings and preparations
- Staff continues to teach at the Delta Vocational Technical College Law Enforcement Academy, supporting the next generation of law enforcement
- Attended Fallen officer services for front range officers killed in the line of duty
- Recruitment for our approved 2018 sworn position continues to be difficult. Main issues seem to be finding qualified competent officers that are willing to relocate to our area. Lack of housing options is a recruitment concern and is becoming a retention issue as well.

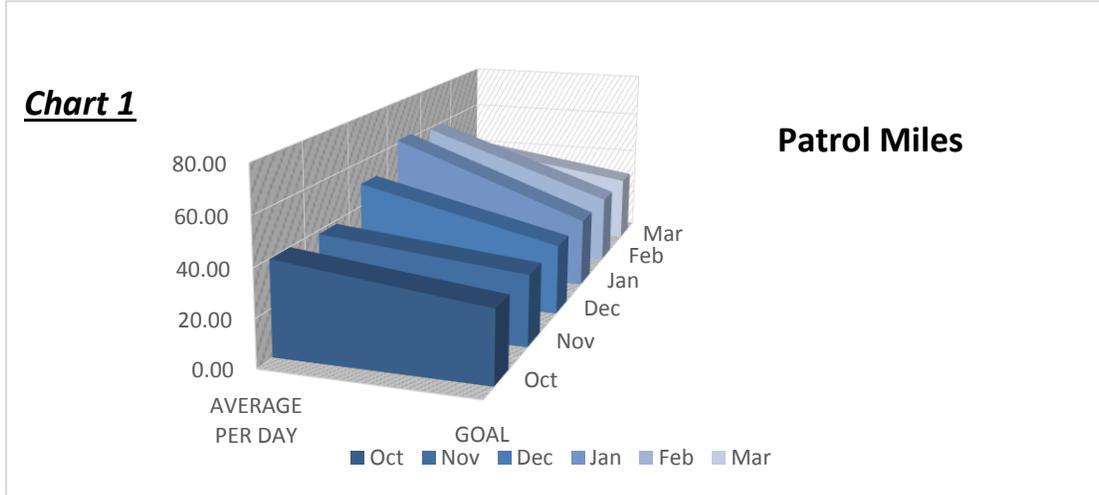
*Respectfully submitted,*



**Chris G. Broady**  
*Mountain Village Chief of Police*

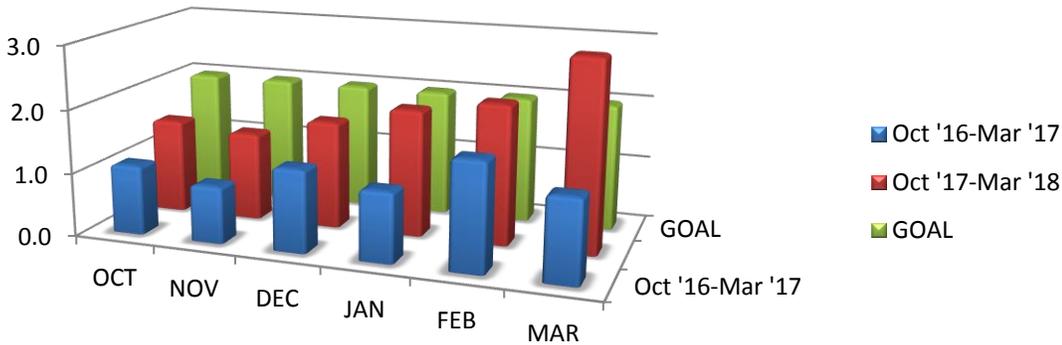
**Mountain Village Police Department  
Semi Annual Report to Town Council  
WINTER: October 2017 through March 2018**

**APPENDIX "A"**



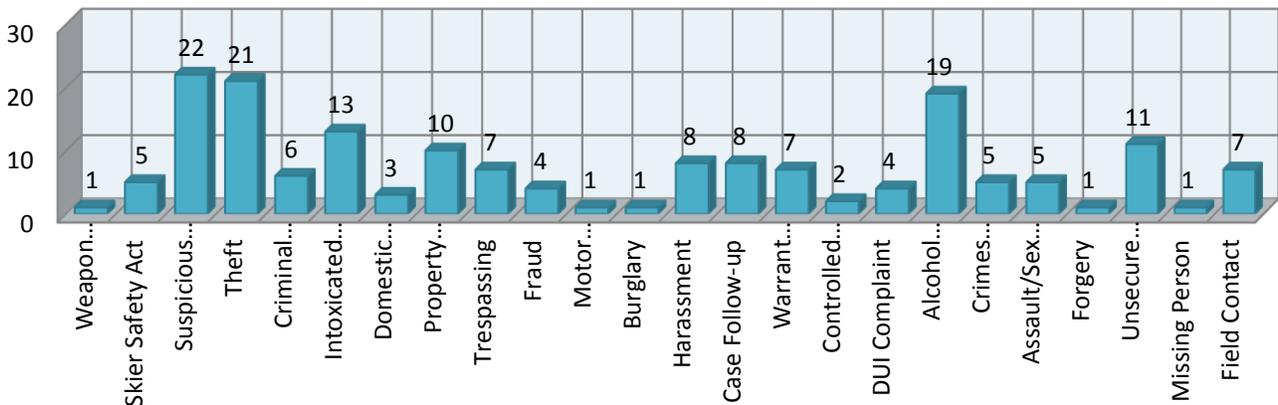
**Chart 2**

**Foot Patrol Yearly Comparisons**



**Chart 3**

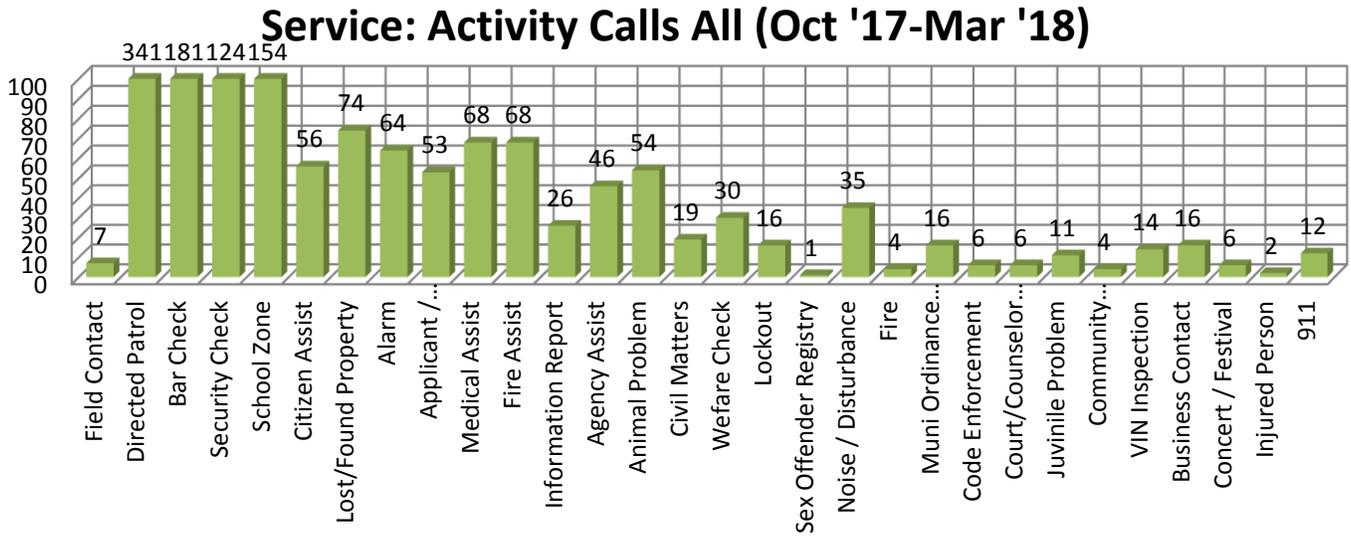
**Protect: Officer Investigation Criminal Complaints (Oct '17-Mar '18)**



**Mountain Village Police Department  
Semi Annual Report to Town Council  
WINTER: October 2017 through March 2018**

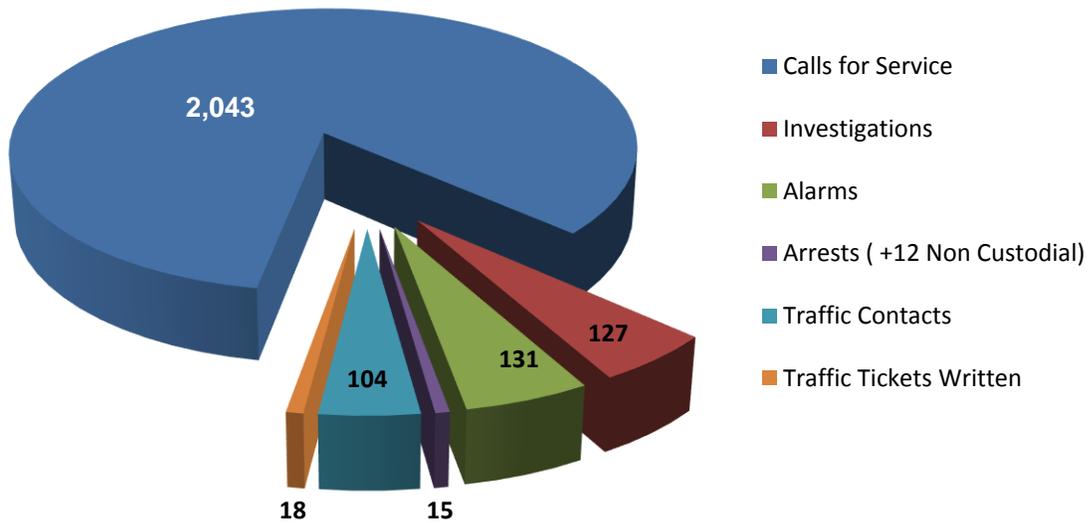
**APPENDIX "A" Continued**

**Chart 4**



**Chart 5**

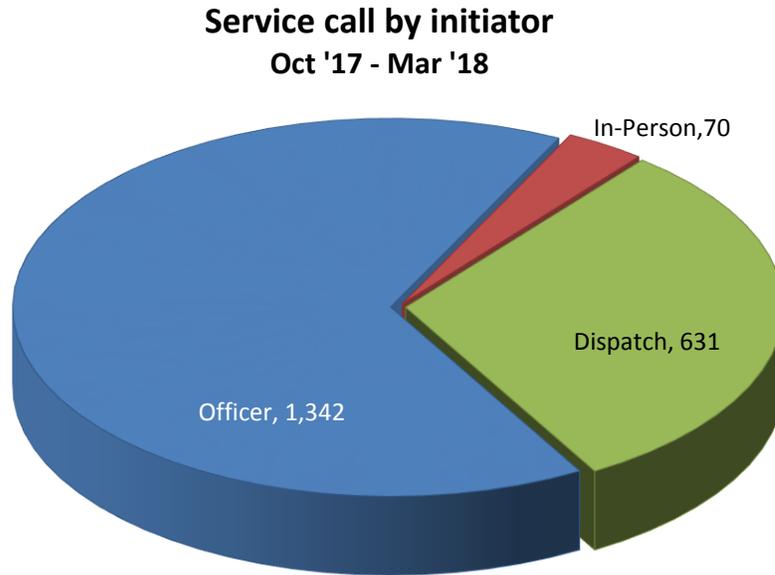
**Semi Annual Recap  
Oct '17 - Mar '18**



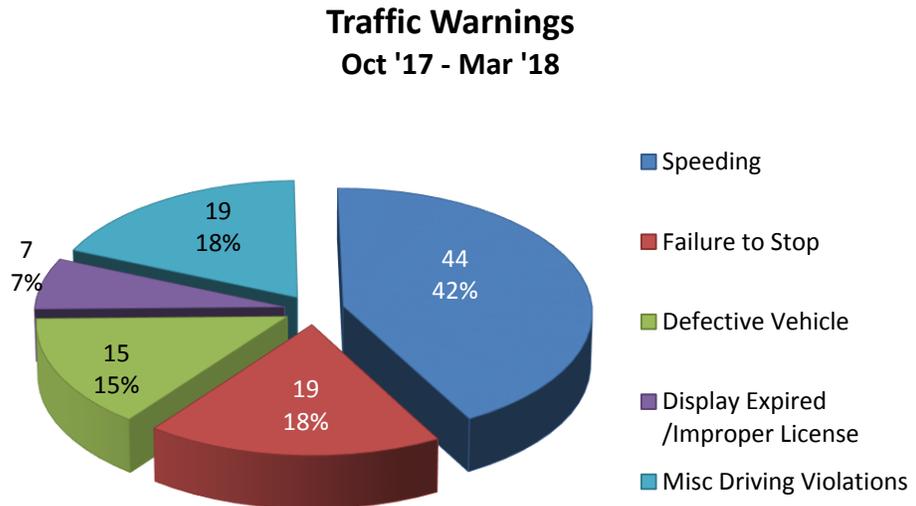
Mountain Village Police Department  
Semi Annual Report to Town Council  
WINTER: October 2017 through March 2018

**APPENDIX "A" Continued**

**Chart 6**



**Chart 7**





Agenda Item 15b.

To: Honorable Mayor Benitez and Mountain Village Town Council  
From: Jim Loebe, Transit & Recreation Director  
Date: May 10, 2018  
Re: Transit & Recreation Semi-Annual Report

The Transit Department currently is comprised of four functions with budgets in the Gondola Fund, General Fund, and Parking Services Fund:

1. Gondola Operations & Maintenance
2. Municipal Bus services
3. Commuter Shuttle program
4. Parking Services

The Transportation Department management team includes:

- Connor Intemann, Gondola Maintenance Manager
- Rob Johnson, Transit Operations Manager (Gondola Ops, Municipal Bus, Commuter Shuttles and Parking)

The Parks & Recreation Department operates within the General Fund and is staffed by four full time year round employees and 2.25 FTE seasonal employees.

## Town of Mountain Village

### GONDOLA OPERATIONS & MAINTENANCE

#### Winter Season 2017-18

#### VISION

To make every guest's experience as unique and unparalleled as the services we provide so they want to return. Our mission is: ride by ride, courteous, friendly, safe, and reliable transportation to meet the needs of the community. Undertake a comprehensive maintenance program to ensure the highest degree of safety and reliability for system users and employees.

#### DEPARTMENT GOALS

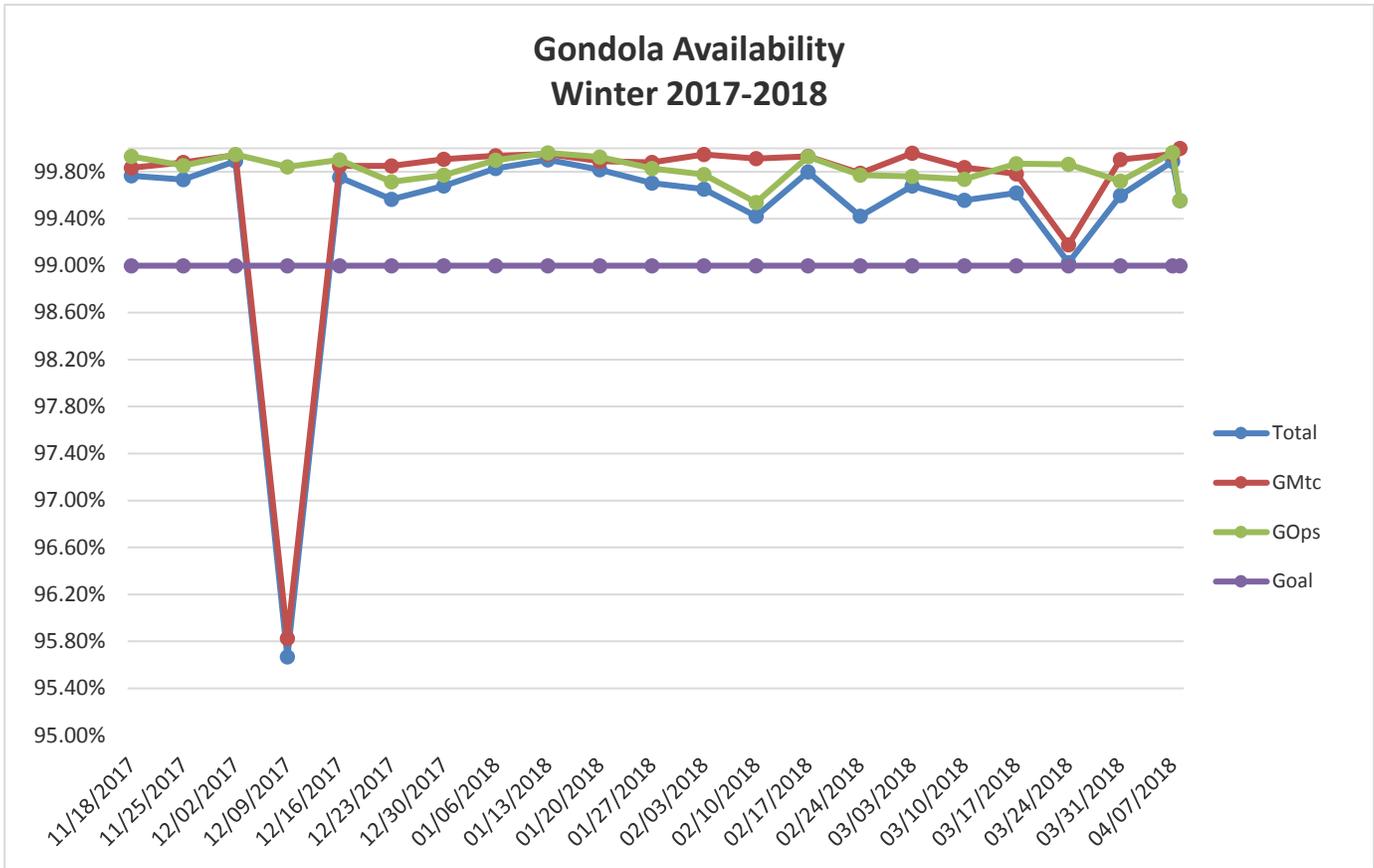
1. Keep gondola downtime to a minimum through training and teamwork.
2. Safely transport all guests and employees by attending to every cabin and every guest.
3. Provide excellent guest services by interacting with every guest in a professional manner.
4. Control costs by performing routine audits of the department's financial performance.
5. Provide a clean, trash free environment at the gondola terminals.
6. Keep up with all mandated maintenance procedures and inspections to remain in compliance with all applicable rules and regulations.

#### PERFORMANCE MEASUREMENTS

- 1a. Operations availability: SUMMER > 99.67% and WINTER > 99.75% of operating hours.
- 1b. Maintenance related availability > 99.75% of operating hours.
- 1c. Total gondola availability > 99.0% of operating hours (includes weather and power outage events)
- 2a. The number of riders are tallied and the data is tracked and reported.
- 2b. There are no (0) passenger injuries from operating incidents.
- 2c. There are no (0) employee injuries from operating incidents.
3. Customer satisfaction: score above 4.0 rating on customer surveys.
4. The department operates at or below budget.
5. Provide > 36 man-hours per year labor allocated to trash and litter pick-up at the terminals.
6. CPTSB Inspection Results and Reporting Requirements: Licenses received and maintained in good standing and zero (0) late or failure to report incidents.

#### PERFORMANCE REPORT

- 1a. Operations Availability: The Gondola Operations department met the 99.75% WINTER availability goal 17 of the 22 operating weeks during the winter season, with an overall achievement of 99.80%.
- 1b. Maintenance Availability: The Gondola Maintenance department met the 99.75% WINTER availability goal 20 of the 21 operating weeks during the winter season, with an overall achievement of 99.66%.
- 1c. Overall Gondola Availability: Total gondola availability exceeded the 99.00% availability goal 21 of the 22 operating weeks of the winter season with an overall achievement of 99.47% for the season.



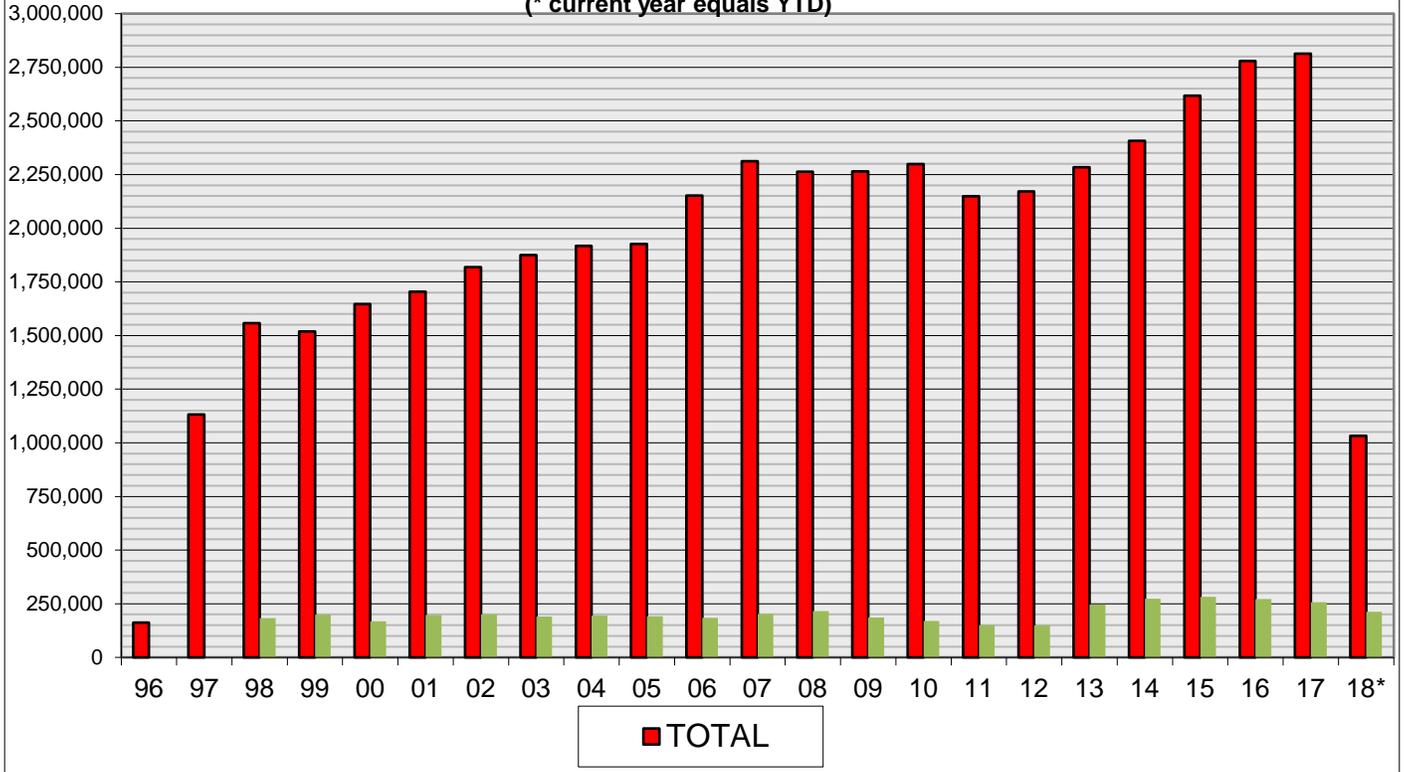
Availability decreased the week ending 12/09/17 due to repair of the Section II bullwheel.

2a. Ridership: Gondola ridership decreased 0.32% for the 2017-2018 winter season compared to the previous winter. Skier usage on the Gondola decreased 8.6%. Total passengers for calendar year 2017 numbered 2,813,254. Chondola ridership increased 6.02%.

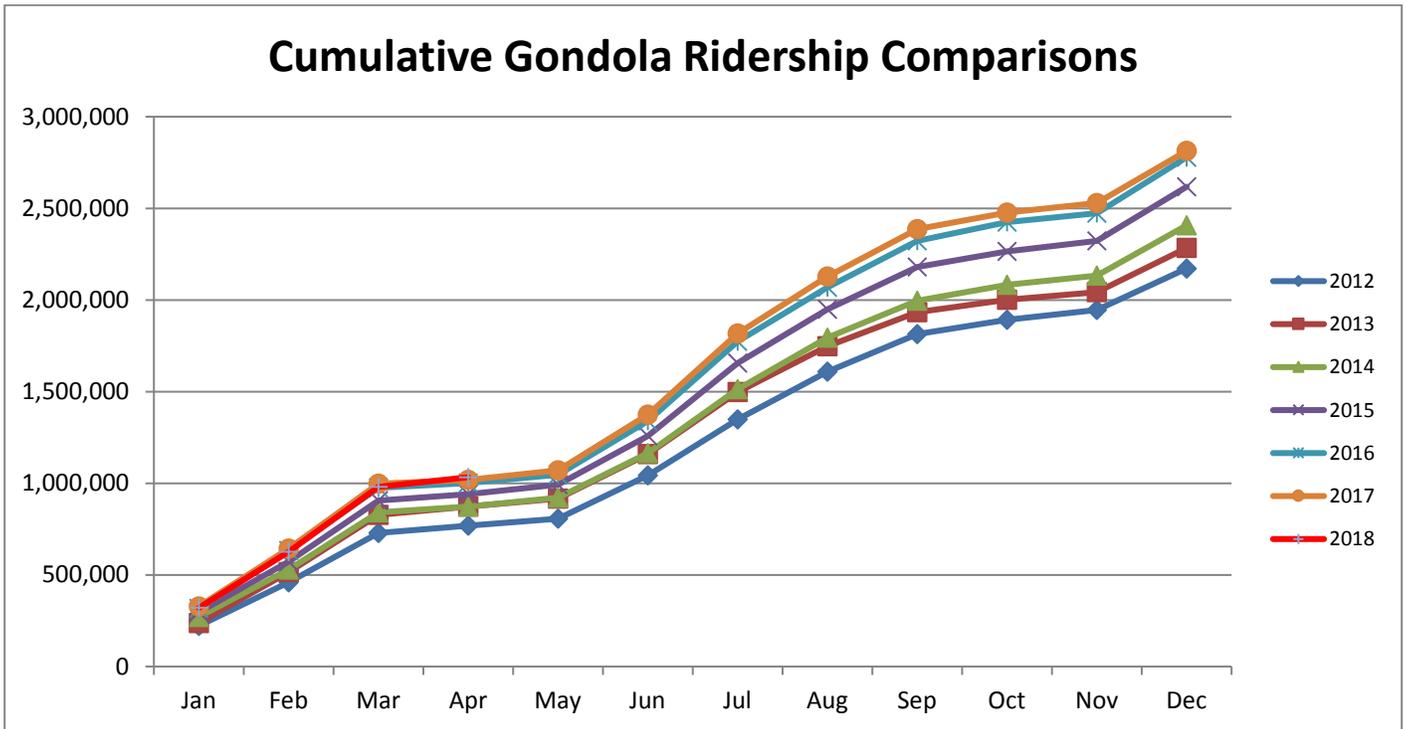
	Winter 2017/18	Winter 2016/17	DIFF	YTD %
Gondola Total	1,369,148	1,373,525	(4,377)	(0.32%)
Skier use	247,991	271,471	(23,480)	(8.6%)
Chondola	125,348	118,226	7,122	6.02%

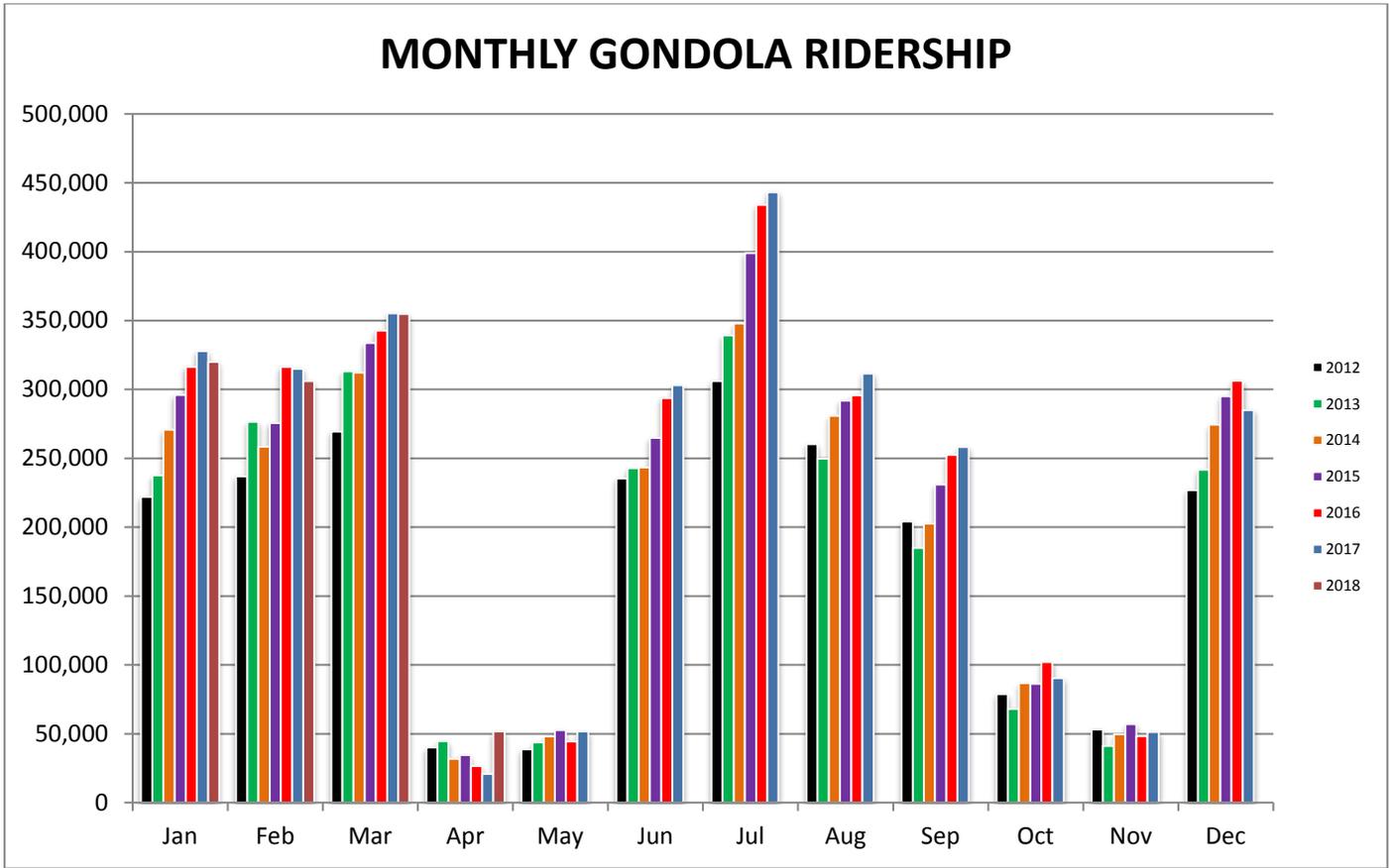
# ANNUAL GONDOLA RIDERSHIP

(\* current year equals YTD)



# Cumulative Gondola Ridership Comparisons



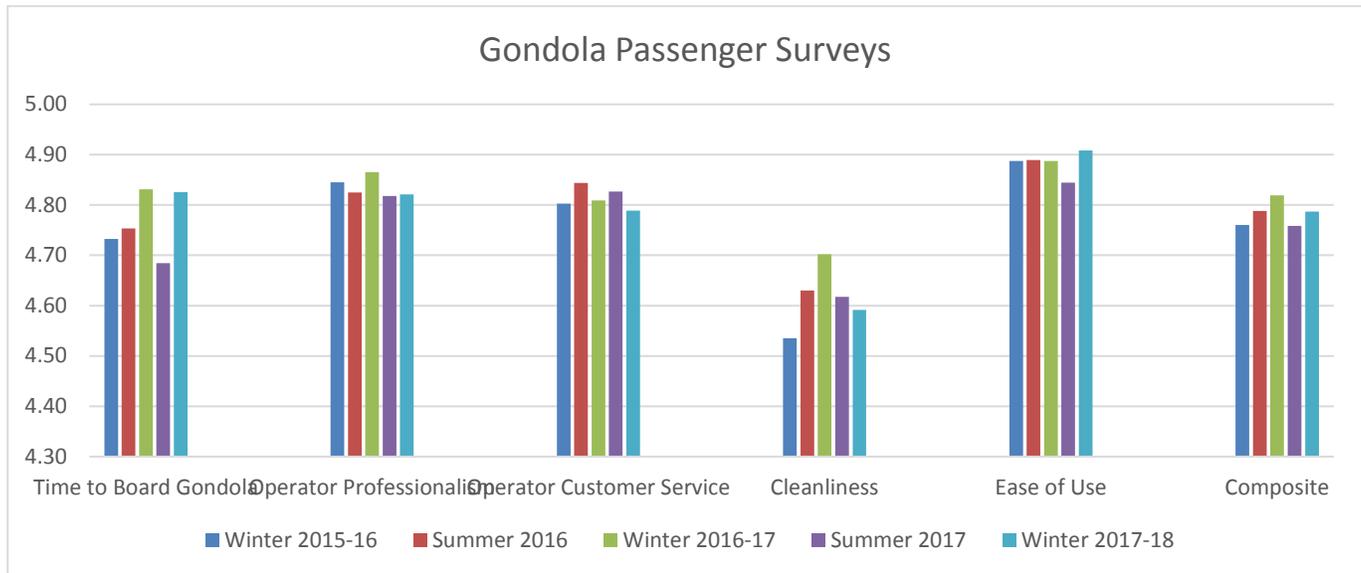


2b. Passenger injuries: There was one (1) passenger injury during the winter season that resulted in a guest receiving medical attention away from the scene. A passenger stepped off the platform at Station 5 and fell. The passenger was transported by Emergency Medical Services to TMC.

2c. Employee injuries: Gondola Operations incurred one workman’s compensation claim that resulted in an expense to the Town of Mountain Village during the winter season. Gondola Maintenance did not incur any worker’s compensation claims this winter resulting in an expense to the Town.

3. Customer satisfaction: The gondola received a composite score of 4.79 on the winter 2017-2018 Gondola Passenger Surveys.

GONDOLA RIDER SURVEYS	Winter 17/18 Visitors	Winter 17/18 Residents	Winter 17/18 Total
Wait time to load cabin	4.83	4.82	4.83
Operator professionalism	4.84	4.80	4.82
Operator customer service	4.84	4.72	4.79
Cabin cleanliness	4.69	4.44	4.59
Ease of use	4.88	4.94	4.91
<b>TOTAL</b>	<b>4.82</b>	<b>4.74</b>	<b>4.79</b>



4. **Budget:** The Gondola Fund ended 2017 under budget for total expenses. YTD (4/30/18), the Gondola Fund expenses are tracking under budget.
5. **Terminal Clean-up:** Gondola Operations allocated 13.0 man-hours to terminal cleanup during the winter season; the department is on track to meet or exceed the 36 man-hour goal for FY-2018.
6. **CPTSB Compliance:** All required licenses have been received and maintained in good standing and there have been zero (0) instances of late or failure to report incidents.

### CUSTOMER CONTACTS:

- Compliments – Email from a guest, “I just wanted to take a moment to shine some light and gratitude on one of your liftys, Kandice, who found and was able to return (via mail!) my diamond necklace to me this weekend. It was a gift from my mother that I never take off and I can’t even begin to express how much it means to have someone return it to me when I thought it was gone forever.”
- “Pretty spiffy.” “I use the gondola all the time.” “Customer service is always good.” “No suggestions. This is the best asset we have.”

During the winter the gondola was reviewed 64 times on Trip Advisor. Trip Advisor posts rate a service on a scale from one to five with one being terrible and five being excellent. The gondola received 57 posts rating it a five and 7 posts rating it a four. Representative posts include, “Wow, what an easy and convenient way to get around. PLUS – the kids love it.” “We take the gondola all the time. It is convenient and the views are amazing.” “We always enjoy the people we meet on the trip to the valley floor.”

- Complaints – A mother and her three children entered a station at Gondola Plaza. An operator was removing blankets from the blanket bin with a shovel (not our prescribed procedure). He inadvertently poked an eleven year old girl in the forehead with the butt end of the shovel handle. The parents reported that an operator had struck their daughter with a shovel. We immediately called the parents to express our regrets. The operator was disciplined.

**COST PER RIDE:**

**2017 ANNUAL COST PER PASSENGER TRIP**

Cost per Ride:	# passenger trips	2017 O&M \$/passenger Trip	2017 Fully Loaded \$/passenger trip
Gondola Rider	2,813,254	\$1.27	\$1.58
Chondola Rider	118,257	\$5.40	-

*Gondola \$/passenger trip = (G-Ops + G-Mtc + FGOc + MARRS) ÷ total riders..... [Capital & Major Repairs not included]*

*Gondola Fully Loaded \$/passenger trip = ( O&M costs + capital & major repairs 15-year amortized expenses) ÷ total riders*

*Chondola \$ cabin passenger trip = (Chondola \$\$ x 2) ÷ total riders..... [Chondola costs split 50 /50 with TSG*

**OTHER:**

- **Extended Gondola Hours:** The gondola operated for five extra hours on three days for New Year’s Eve and the Lifestylez Group during the winter season.
- **Operating Schedule:** The gondola closed for the winter season on April 8, 2018, concurrent with the closing of the Telluride Ski Area. The gondola is scheduled to reopen for the summer season on Thursday, May 24, 2018. Extended hour dates currently scheduled for the summer season include Mountain Film, Bluegrass, The Ride, Telluride Film Festival, and Blues & Brews (gondola and Meadows bus services are open to the public during all extended hour events).
- **Operator Recruitment & Retention:** Employee retention for the winter season was at 80.5%. Employee retention for the 2016-2017 winter season was 67.4%.

# Town of Mountain Village

## MUNICIPAL BUS

**WINTER SEASON 2017-18: Nov 1 – Apr 30**

### VISION

To make every guest's experience as unique as the services we provide so they want to return. Our mission is: ride by ride, courteous, friendly, safe, and reliable transportation to meet the needs of the community.

### DEPARTMENT GOALS

1. Safely transport all guests and employees without incidents/accidents.
2. Provide excellent guest services by interacting with every guest in a professional manner.
3. Operate a fiscally responsible department through auditing, inventory management and scheduling management.
4. Provide a clean, trash free natural environment at the Meadows and Town Hall parking lots.

### PERFORMANCE MEASUREMENTS

- 1a. Number of vehicle accidents: no vehicle accidents
- 1b. Number of worker's comp claim: no worker comp claims
- 2a. Number of rides: track ridership data
- 2b. Customer satisfaction: score above 4.0 on customer service surveys
- 2c. On-Time bus stop departures > 90.0%
3. The department operates at or below budget
4. Allocate > 12 man-hours per year to trash and litter pick-up at the Meadows and Town Hall parking lots

### PERFORMANCE REPORT

1a. NUMBER OF VEHICLE ACCIDENTS: The municipal bus program had one (1) vehicle accident during the winter season.

1b. NUMBER OF WORKER'S COMP CLAIMS: The municipal bus program had zero (0) worker's comp claims during the winter season.

2a. RIDERSHIP DATA:

WINTER SEASON BUS RIDERSHIP: Nov 1 – Apr 30

ROUTE	2017/18	2017/16	DIFF	%DIFF
Meadows Bus	5,546	3,350	2,196	65.6%
Village Center	413	0	413	100.0%
Telluride Loop – Mountain Village	6,221	5,694	527	9.3%
Telluride Loop - Galloping Goose	3,765	-	-	-

2b. **CUSTOMER SATISFACTION:** Supervisory staff conducts periodic rider surveys; rider surveys for winter 2017/18 had an overall score of 4.51.

**WINTER SEASON: Nov 1 – Apr 30**

<b>MUNICIPAL BUS SURVEYS</b>	<b>Winter 2014-15</b>	<b>Winter 2015-16</b>	<b>Winter 2016-17</b>	<b>Winter 2017-18</b>
<b>Bus Punctuality</b>	4.07	4.12	4.41	4.41
<b>Driver Skill</b>	4.52	4.41	4.68	4.54
<b>Driver Courtesy</b>	4.74	4.69	4.76	4.78
<b>Vehicle Cleanliness</b>	3.85	3.71	4.19	4.10
<b>Overall Satisfaction</b>	4.26	4.43	4.81	4.74
<b>Location of Stops &amp; Routes</b>	4.44	4.27	4.83	4.86
<b>Composite Score</b>	4.29	4.27	4.57	4.51

**ON-TIME BUS DEPARTURES:** TMV bus service is scheduled to operate on the Telluride loop in the spring and fall shoulder seasons and the Meadows loop during the summer gondola operating season. The bus does not run during the winter months when the Chondola is open for public operations. The November on-time departure rate was 92.1%. The April on-time departure rate was 84.4%. The composite on-time departure rate for the period November 1 through April 30 was 88.4%.

3. **BUDGET:** FY-2017 bus expenses were \$195,188. The revised FY-2017 budget was \$207,833. YTD 2018 bus expenses are tracking under budget.

4. **CLEAN-UP:** The municipal bus crew spent 6.25 man-hours cleaning up trash and litter at the bus stops, Town Hall parking lot and Meadows parking lot during the winter season; this puts the department on track to meet or exceed the 12 man-hour goal for FY-2018.

**CUSTOMER CONTACTS:**

- **Compliments:** “I really appreciate the offseason bus service. I don’t know what I would do without it.” “I like the fact that the bus is pet friendly.”
- **Complaints:** “Dogs should not be on the bus. They are dirty.” “Why do we have to go through the road construction. Why can’t we go around Smugglers?” “It is a long wait for the bus on Saturday and Sunday.”

**OTHER TRANSIT NEWS:**

- The municipal bus service between Telluride and Mountain Village began on October 16, 2017 for the fall shoulder season and continued until the gondola opened on November 17<sup>th</sup>. The Meadows route service then operated until the Chondola opened for public operation on November 22, 2017. The municipal bus began Telluride loop operations for the spring shoulder season on April 9, 2018.
- The Meadows bus will begin running for the summer season when the gondola opens on May 24<sup>th</sup>.

# Town of Mountain Village

## COMMUTER SHUTTLE PROGRAM

### Winter Season Report: Nov 1, 2017 – April 30, 2018

#### Vision

The Town of Mountain Village provides safe and reliable transportation for Town employees and public riders. The shuttle program was initially implemented for groups of three (3) or more Town employees who work similar shifts and who commute in similar directions from the same location or on the same general route. In order to offset costs associated with the program, and provide regional transit services, the program was also made available to the public. The Town partially subsidized rides for both employee and public riders. Beginning January 1, 2018, pursuant to a Funding Agreement between the Town of Mountain Village (Town) and SMART, the Town continues to provide regional transit services along established routes prescribed by the Town. Regional commuter shuttles and a shoulder season bus service between Mountain Village and Telluride are operated by the Town and funded by SMART.

#### Department/Program Goals

1. Provide the regional workforce with efficient and effective public transportation that meets employee and town scheduling needs.
2. Emphasize driver training to provide safe commuter shuttle services.
3. Operate the commuter shuttle program pursuant to the Funding Agreement Between the Town of Mountain Village and the San Miguel Authority for Regional Transportation.

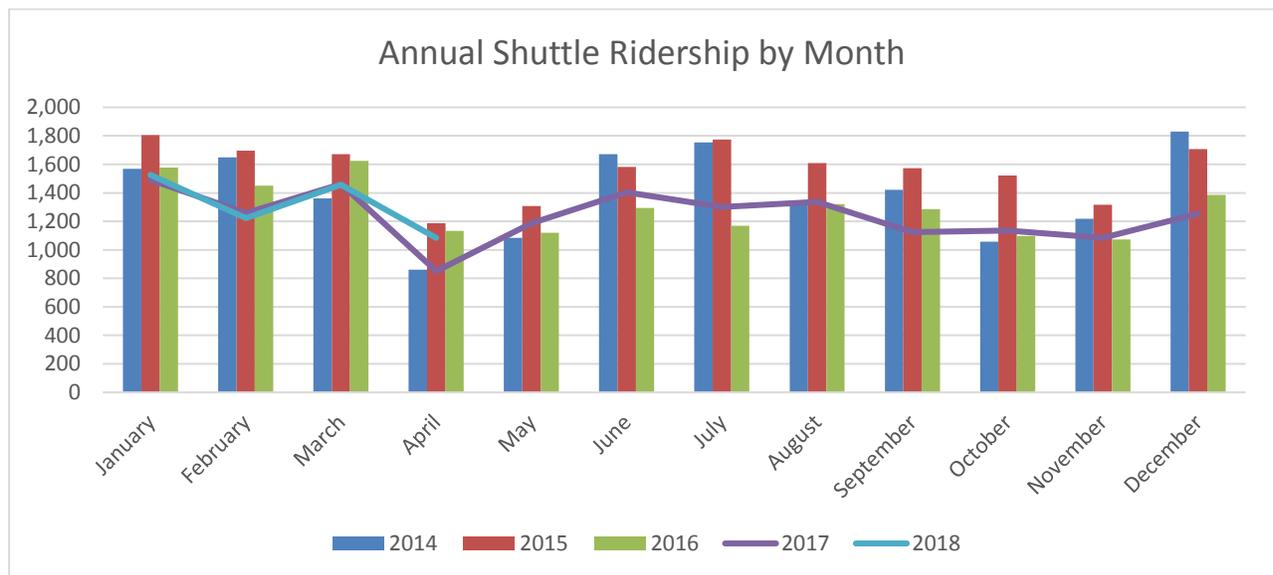
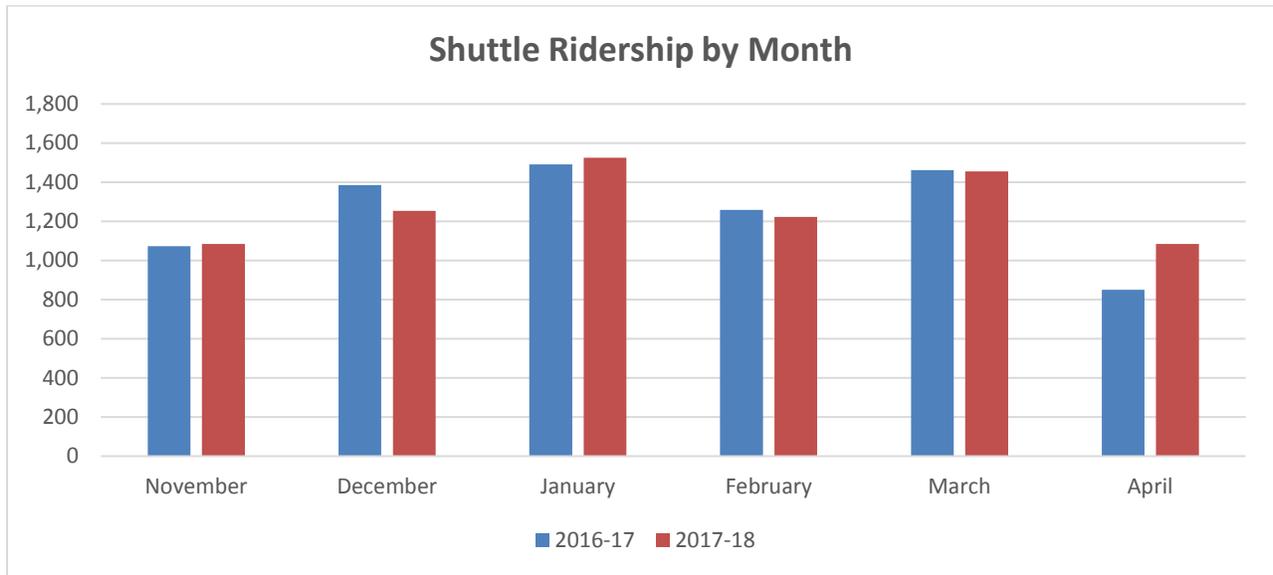
#### Performance Measures

1. Data: Track program and route ridership data.
2. Asset Utilization: Capacity utilization per route greater than 50%.
3. Subsidy: SMART and Town commuter shuttle per rider subsidy below \$2.50 per passenger trip.
4. Training: 100% driver training compliance.
5. Safety: Zero vehicle accidents.
6. Financial: Total annual expenditures within or below the adopted budget.

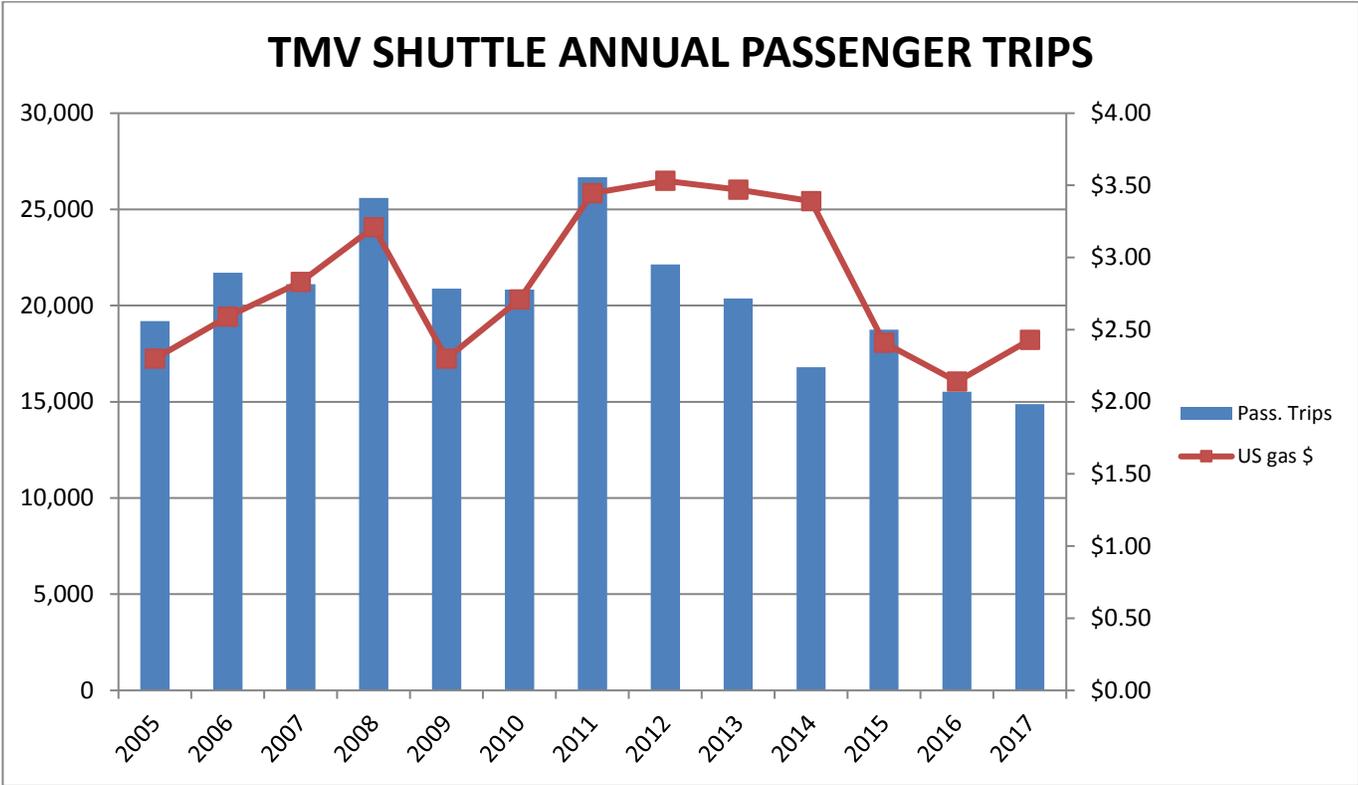
#### Performance Measure 1: Commuter Shuttle Ridership

During the winter season of 2017-2018, the number of vehicle trips increased by 10.23%, the number of seats available for passengers increased by 1.44%, and the number of passengers transported increased by 1.42% compared to the 2016-2017 winter season.

Period	# of Trips	# of Seats	# of Passengers	Utilization
Nov2016-Apr2017	1,574	15,190	7,520	49.51%
Nov2017-Apr2018	1,735	15,409	7,627	49.50%
Difference	161	219	107	-0.01%
%Difference	10.23%	1.44%	1.42%	-0.02%

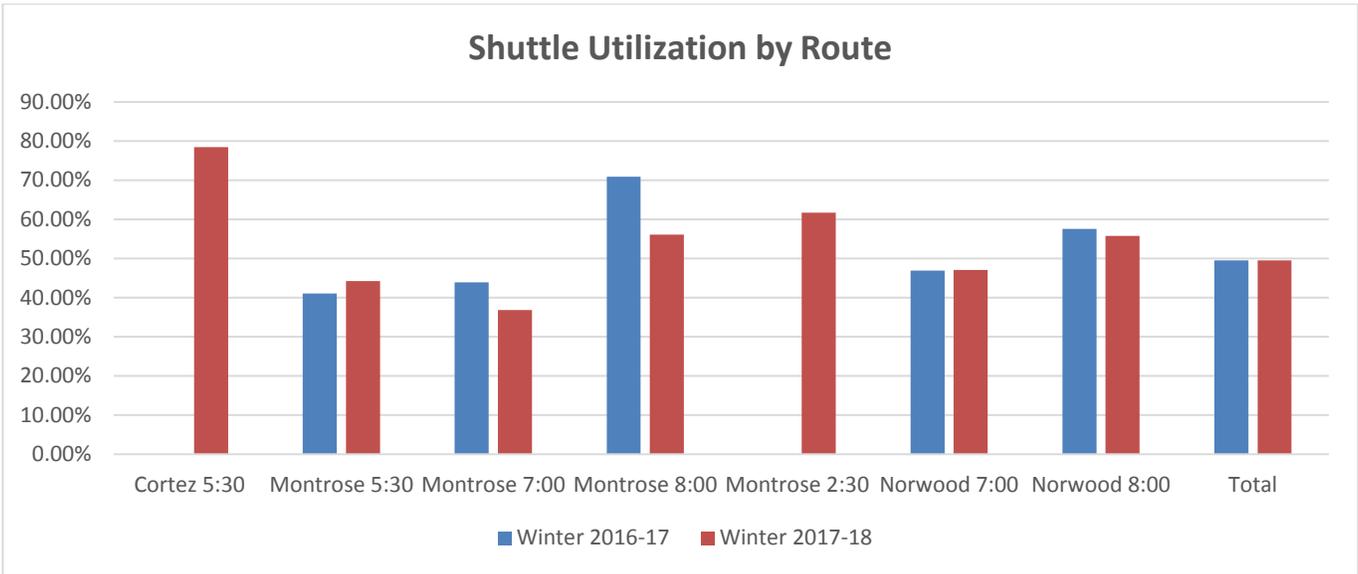


Shuttle ridership is impacted by several factors including the number of Town employees living locally, the number of seasonal Town and public riders, and the cost of fuel. Other things being equal, higher gasoline costs generally equate to higher shuttle passenger numbers. Although gas expenses for the shuttle program increased by 37.8% for the first quarter of 2018 versus the first quarter of 2017 rider volume was flat for the period, year over year.



**Performance Measure 2a: Shuttle Utilization by Route**

Overall shuttle utilization for the 2017-2018 winter season was 49.50% compared to overall shuttle utilization for the 2016-2017 winter season of 49.51%. Please note that utilization was zero for the winter 2016-17 season for the Cortez shuttles and the Montrose evening shuttle. The Cortez shuttles did not operate because of a lack of TMV employees from Cortez. A TMV employee driver was not available. The evening Montrose shuttle did not operate due to a lack of demand.



### **Performance Measure 2b: Cost Per Rider Subsidy**

The gross cost per passenger trip for the 2017-2018 winter season was \$2.96 (this analysis does not include vehicle depreciation). After factoring in van rider revenues, the gross subsidy is \$1.39 per passenger trip. TMVOA's contribution for Gondola employee ridership costs are based on the percentage of shuttle riders employed on the Gondola. Gondola employees were 21.16% of shuttle riders for the winter season. After TMVOA's contribution, the net subsidy is \$1.07 per rider. Total cost per passenger trip for the 2016-17 winter season was \$2.49 and the net subsidy per rider was \$0.31. The Town is responsible for the net subsidy for the November through December 2017 time frame. SMART is responsible for the net subsidy for 2018.

<b>COST PER RIDER</b>		<b>Nov-Dec 2017</b>	<b>Jan-Apr 2018</b>	<b>Total</b>
Expenditures		7,454	15,112	22,566
Shop Hours		1,440	1,980	3,420
Van Rider Revenue		5,704	9,683	15,387
Net Expenses		3,190	7,409	10,599
Riders		2,338	5,289	7,627
Total Cost Per Passenger Trip		3.19	2.86	2.96
Gross Subsidy Per Rider		1.36	1.40	1.39
Net Subsidy Per Rider*		1.07	1.11	1.10

\*Net subsidy is less TMVOA's contribution for 21.16% of total ridership.

### **Performance Measure 3a: Training**

All new TMV employee shuttle participants who elect to drive are required to complete shuttle driver training prior to driving. Semi-annual refresher training is completed by all shuttle drivers. Training is typically completed before June 1 and December 1 of each year.

### **Performance Measure 3b: Vehicle Accidents**

The shuttle program had zero accidents during the 2017-2018 winter season.

### **Performance Measure 4: Budget**

Total Commuter Shuttle expenses were under budget for fiscal year 2017 and are tracking under budget YTD for fiscal year 2018.

TOWN OF MOUNTAIN VILLAGE  
PARKING SERVICES SEMI-ANNUAL REPORT  
Winter Season 2017-2018

**DEPARTMENT MISSION**

Provide excellent parking services to the residents, guests and employees of the Mountain Village.

**DEPARTMENT GOALS**

1. Manage HPG, surface lots and GPG to minimize on-street overflow parking
2. Maximize parking revenues
3. Provide user friendly parking opportunities
4. Continue moving towards self-sustainability
5. Provide a clean, trash free natural environment at Town managed parking facilities.

**DEPARTMENT PERFORMANCE MEASURES**

- 1a. Track parking usage at all lots and on-street overflow
- 1b. Track % utilization of parking spaces used to capacity
2. Operate within adopted budget
3. Respond to all complaints and call center reports within 24-hours
4. Each year, the enterprise operates with a reduced transfer from the General Fund
5. Allocate > 36 man-hours per year to trash and litter pick-up at parking facilities.

Summary:

Total noon parking counts were up 9.0% this winter as compared to winter 2016/17. Winter season revenues were down 11.1% from the same period last year. Revenues were down 17.0% and 9.2% at HPG and GPG, respectively. Winter 2016-17 parking utilization was 48.2% as compared to the winter season of 2016/17 when overall utilization was 44.3%. GPG accounts for the majority of the available parking space. GPG utilization increased to 46.1% in the 2017-18 winter season from 39.8% in the 2016/17 winter season. During the same period HPG utilization decreased to 42.8% from 46.3%

**WINTER SEASON NOON PARKING COUNTS (Nov 1 – Apr 30)**

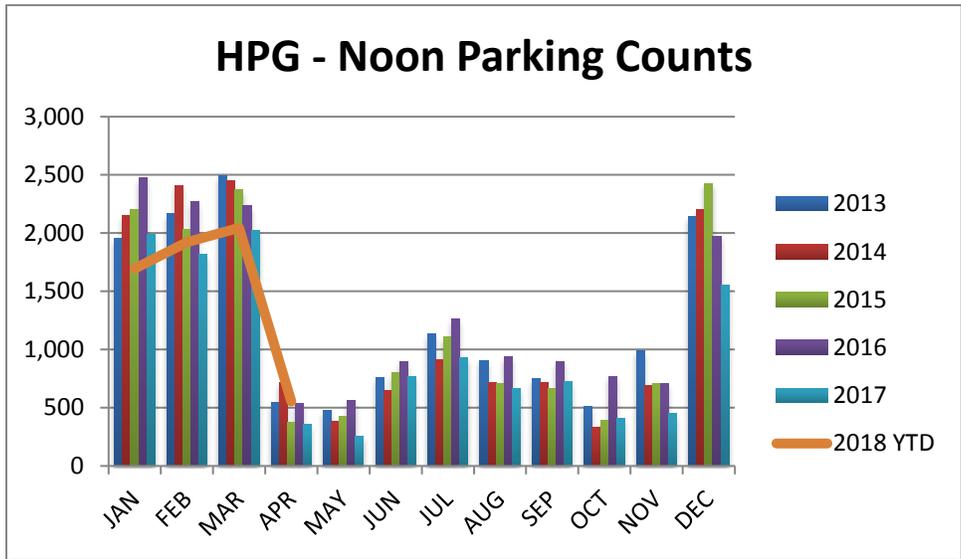
	HPG	GPG	Street	UMVB	NVCP	THP	SVC	Meadows	TOTAL
2017/18	8,212	38,379	0	4,301	2,489	4,837	1,802	11,494	71,514
2016/17	8,874	33,109	0	4,318	2,428	4,079	1,881	10,931	65,620
diff	-662	5,270	0	-17	61	758	-79	563	5,894
%	-7.5%	15.9%	0.0%	-0.4%	2.5%	18.6%	-4.2%	5.2%	9.0%
cap utilization	106	460	-	40	25	60	18	110	819
%	42.8%	46.1%	-	59.4%	55.0%	44.5%	55.3%	57.7%	48.2%

**WINTER SEASON PARKING REVENUE (Nov1 – Apr 30)**

	HPG	GPG	NVC	permits	event fees	TOTAL
2017/18	\$97,432	\$21,210	\$10,234	\$9,515	\$20,000	\$158,391
2016/17	\$117,421	\$23,350	\$8,892	\$8,485	\$20,000	\$178,148
diff \$\$	-\$19,989	-\$2,140	\$1,342	\$1,030	\$0	-\$19,757
%	-17.0%	-9.2%	15.1%	12.1%	-	-11.1%

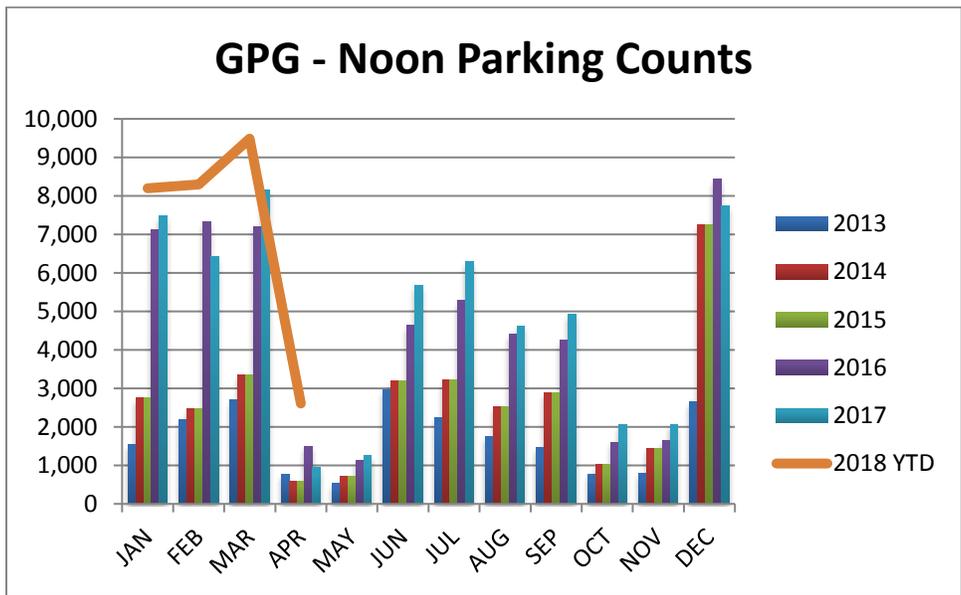
Heritage Parking Garage:

The Heritage Parking Garage (HPG) daily noon parking counts decreased 7.5% and revenues decreased 17.0% from the previous winter season. The gross yield for the 2017/18 winter season at HPG was \$11.86 per parked car as compared to \$13.23 for the same time period during the winter of 2016/17.



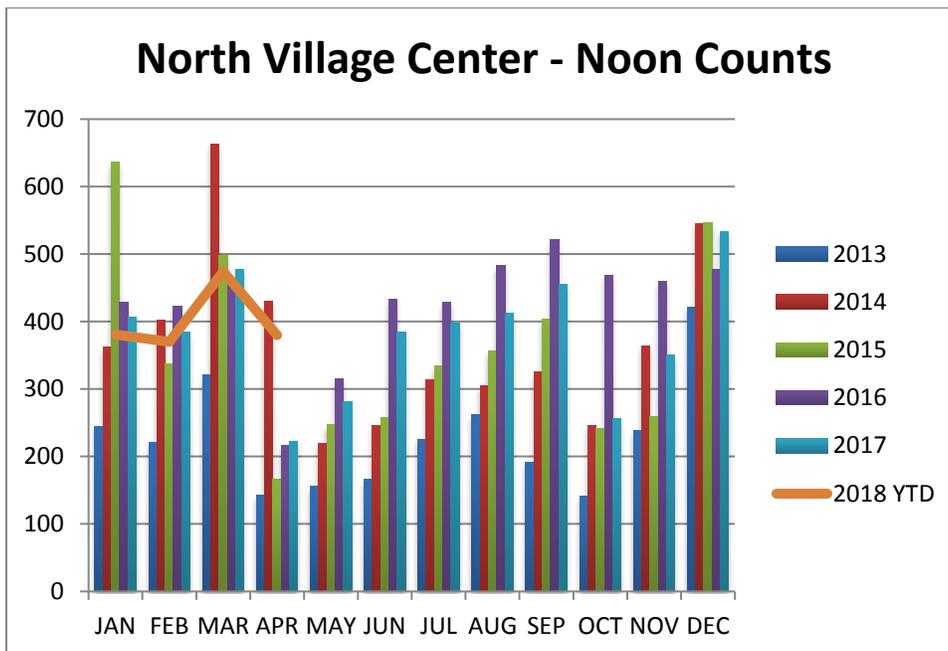
Gondola Parking Garage:

Winter season noon parking counts at the GPG increased 15.9% from the same period last year. Revenues were down 9.2% over the same period with a \$0.55 yield per parked vehicle versus \$0.71 per parked vehicle for the for the 2016/17 winter season.



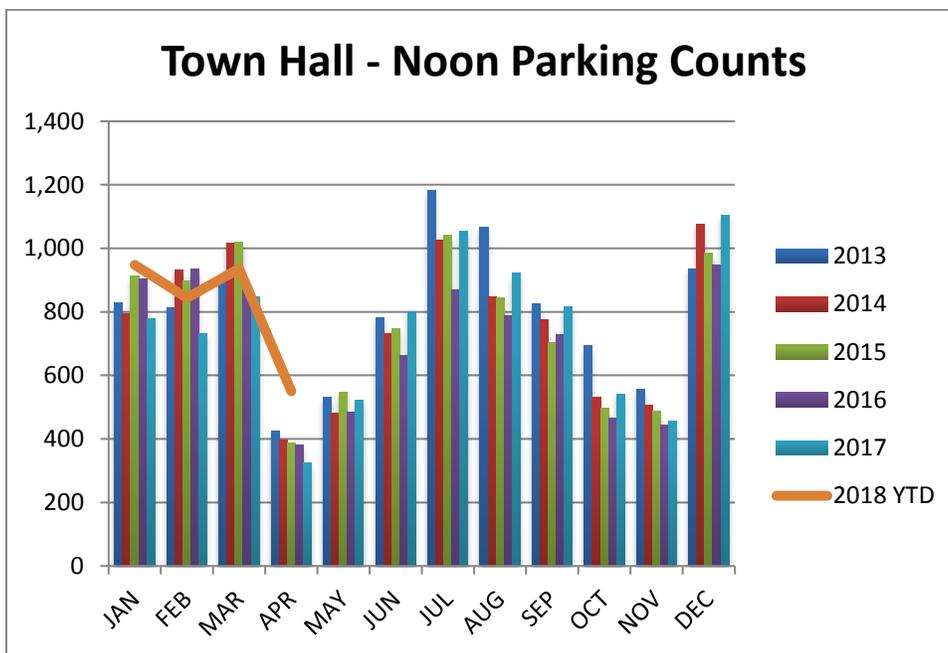
North Village Center Surface Lot:

Noon parking counts were up 2.5% from the previous winter season at the NVC and gross revenues were up 15.1%. The yield per parked vehicle for the 2017/18 winter season was \$4.11 versus \$3.66 for the winter of 2016/17. Residential parking permit holders use this lot free of charge.



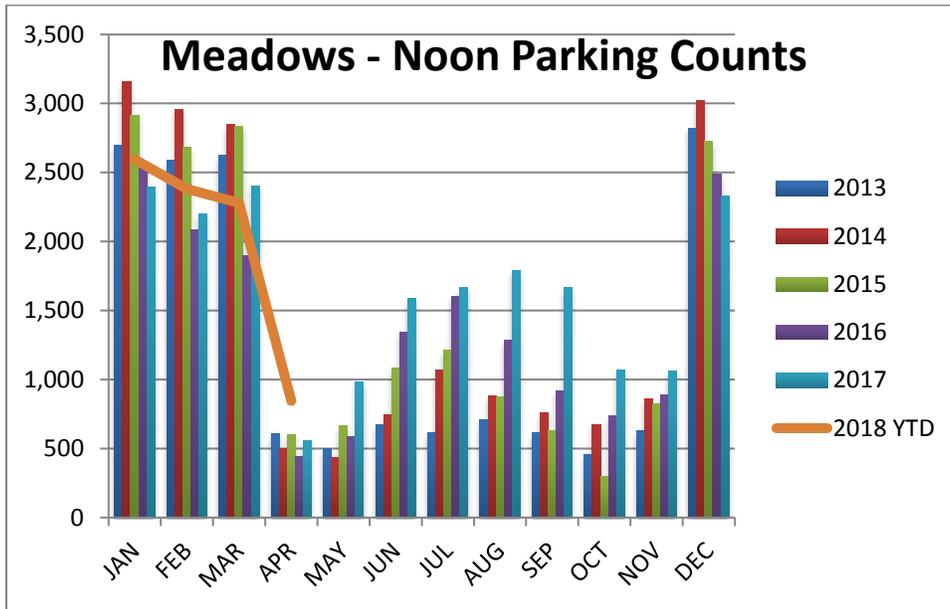
Town Hall Parking:

Parking during the 2017/18 winter season increased 18.6% compared to the winter of 2016/17 at the Town Hall surface lot. Free, day-use residential permit parking continues to be provided along the rock wall.



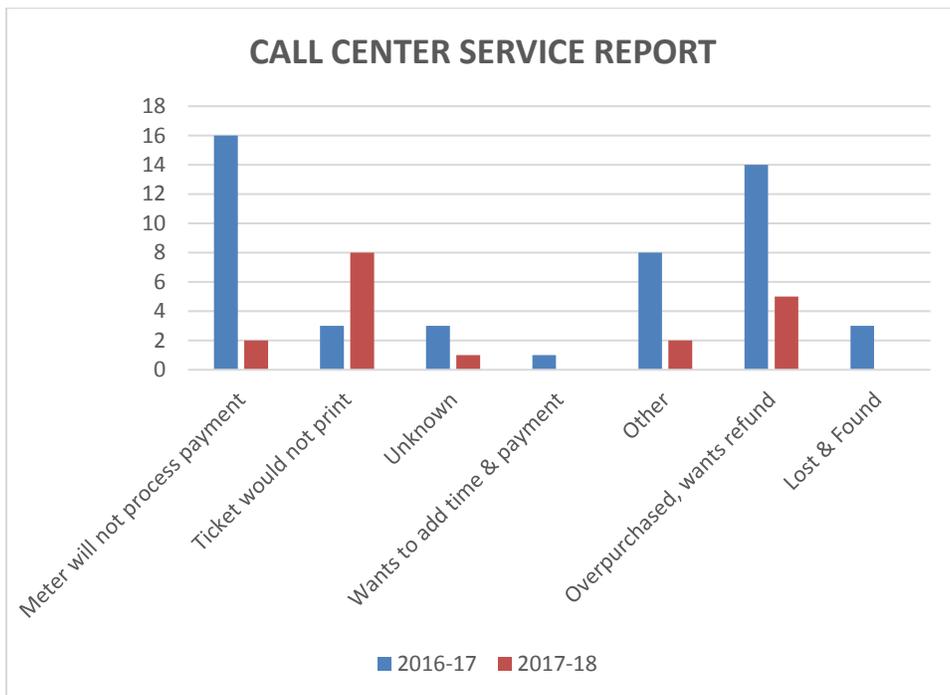
Meadows Parking:

Winter parking usage at the Meadows lot increased 5.2% from the previous winter.



Calls for Service:

Best Connections answering service handles customer complaint calls for service. During the winter season BC logged 18 calls received and resolved by the service center with 18,168 transactions for a 0.10% ratio of complaint calls to meter transactions. User complaints with the meters at the GPG, HPG and NVC lots through the winter season were generally due to guests not understanding how to use the meters.



Parking Services Budget:

The Parking Fund generated a \$50,225 surplus in 2017. Parking revenue 2018 YTD is consistent with budget projections. Parking related YTD 2018 expenses are tracking under budget.

PARKING SERVICES FUND – SURPLUS/(DEFICIT)

	2013	2014	2015	2016	2017	2018
Total Revenues	323,395	397,500	502,091	407,432	493,116	134,420
Total Expenses	(281,338)	(328,928)	(280,298)	(286,610)	(405,192)	(66,130)
Subtotal / Surplus/Deficit	42,057	68,572	221,793	120,822	87,924	68,290
Overhead & Asset Sales	(30,777)	(31,821)	(30,285)	(27,038)	(37,699)	(10,141)
Surplus/Deficit	11,280	36,751	191,508	93,784	50,225	58,149

Parking Rate Plan:

The Parking Committee’s vision is to manage a comprehensive parking plan that provides consistent and fair parking options to guests, residents, business owners and employees of the Mountain Village. TMV parking services are generally well received in that overflow parking is avoided (except Bluegrass), HPG is better utilized providing convenient customer access to Mountain Village Center businesses, and revenues are collected at GPG and HPG to help offset Parking Services O&M expenses.

The following parking rate schedule was in effect for the winter season:

	GPG	HPG	NVC	Short Term (Wells Fargo)	SVC (Blue Mesa)	Town Hall	Meadows
Day Rate \$:	Free	\$2 per hour; \$35 max per 24-hr period	\$2 per hour (MV resident permit - free)	Free	Free	Free	Free
Limit:	14 days	7 days	Free public parking 6 pm – 2 am	30 minutes 7 am – 2 am	30 minutes 7 am – 2 am Unlimited after 6 pm	60 minutes 7 am – 2 am	8 am – 8 pm 14 day max
Overnight	\$25.00 valid for 24 hrs	same as day rate	NO	NO	NO	NO	BY PERMIT ONLY 8 pm – 8 am

Parking Lot Trash:

Town staff participated in 20.5 hours of trash and litter pick-up at different parking lots during the winter season. The department is on track to meet or exceed the 36 man-hour goal for FY-2018.

**TOWN OF MOUNTAIN VILLAGE  
PARKS & RECREATION  
Winter Season 2017-18**

**VISION**

The Mountain Village Parks and Recreation Department provides accessible, affordable and diverse recreational opportunities to all Mountain Village residents and visitors.

**DEPARTMENT GOALS**

1. Establish effective relationships with stakeholders for recreation venues.
2. Manage a fiscally responsible department by balancing expenses with revenue and grant acquisitions to remain within budget.
3. All recreation venues are prepared by the beginning of their respective seasons.
4. Perform departmental operations with attention to safety.
5. Provide a clean, weed free natural environment along the hike and bike trails.

**DEPARTMENT PERFORMANCE MEASURES**

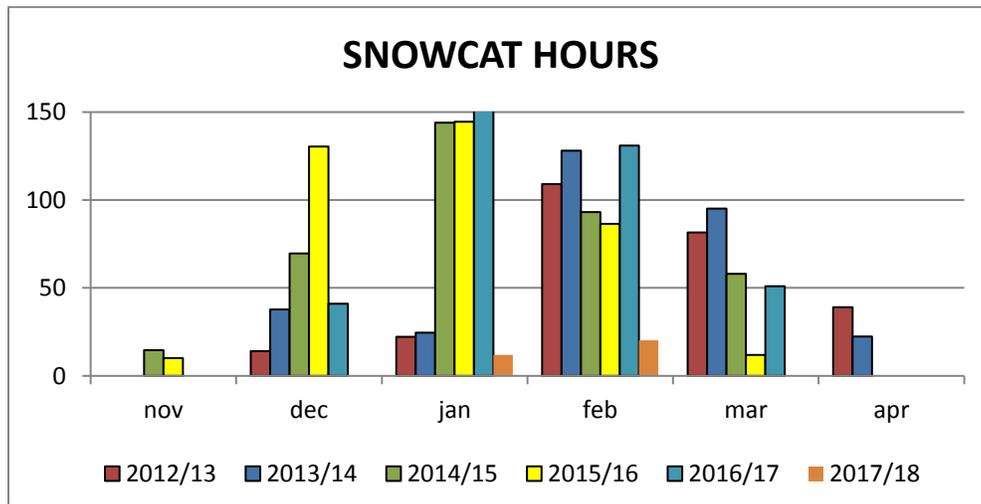
1. Manage stakeholder agreements with TSG, TMVOA & USFS.
2. Perform department functions within adopted budget.
3. 100% of recreational venues operational at the beginning of their respective seasons.
4. No worker comp claims.
5. Allocate > 20 man-hours of weed control activities along the hike and bike trails.

**WINTER 2017-18 PARKS & RECREATION ACHIEVEMENTS**

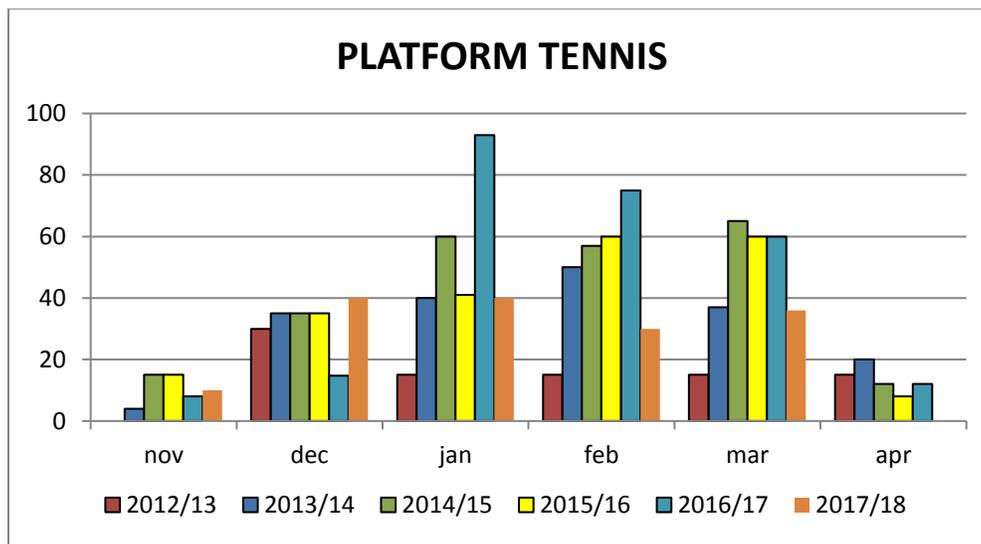
1. Stakeholder relations:
  - Coordinated with TSG with winter trail opening and closings.
  - Continued collaboration with USFS and regional partners to help fund “Rec Ranger” program for summer 2018 season.
  - Collaboration with local partners to help fund the Telluride Mountain Club’s regional trails coordination effort.
  - Collaboration with local partners to develop unified regional trails safety messaging campaign to launch with summer 2018 season.
  - Continued coordination with USFS for trail maintenance on public lands.
  - Working with TSG on summer Bike Park construction activities and eventual hand-off of operations.
  - Worked with new management at Hotel Madeline on skate center lease agreement.
  - Development of Trails Master Plan RFP with input from local stakeholders.
2. The 2017 year-end expenses were under budget. YTD 2018 expenses are tracking under budget.
3. All winter venues were ready to open at beginning of their respective seasons. The ice rink opened on Thanksgiving Day. Nordic grooming suffered with the low snow year, with the snowcat and snowmobiles not being able to hit the trails until January 22<sup>nd</sup>. Snowshoe trail packing occurred after each snow event throughout the winter season. Rec staff built and maintained the Village Pond (aka Frozen Fun) ice skating venue again this winter which opened on December 19<sup>th</sup>.
4. No Workers Compensation claims YTD resulting in TMV costs.
5. No weed control was conducted during the winter season. Weed control typically is allocated in July & August.

## OTHER WINTER VENUE OBSERVATIONS

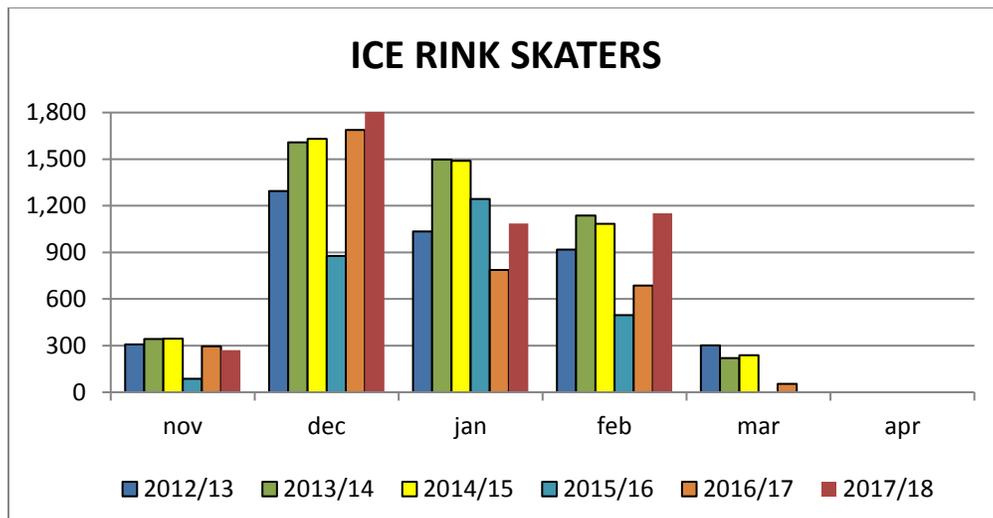
- Snowcat Grooming:** Nordic grooming was almost non-existent this year with an adequate base not being achieved until January 22<sup>nd</sup>. The snowcat was only able to hit the trails four more times after that. Coverage was so thin on the nordic trail system that the even the snowmobiles had limited effectiveness. Grooming operations never occurred on the Valley Floor this winter. Snowcat grooming activities in Mountain Village ceased on February 25<sup>th</sup> and snowmobile activities concluded on March 5<sup>th</sup>.



- Paddle Tennis:** Paddle court usage was down 55% from the winter 16/17 season.



- Ice Rink Activity:** Ice rink usage was up 106% from winter season 2016-17 with a total of 7239 visitors. This was the biggest year on record with the significant increase in numbers believed to be related to the early season snow conditions. By the first of March, with the days getting longer and the sun angle getting higher, the compressors struggled to keep up and the rink began opening up later in the day. The rink was shut down for the season on March 12<sup>th</sup>.



## UPCOMING PARKS & REC PROJECTS

- **Trails Master Plan:** The 2018 Trails Master Plan RFP was developed over the course of the winter and released on May 3<sup>rd</sup>. It has a scheduled completion date of December 31<sup>st</sup>, 2018. Rec staff will be assisting the chosen firm throughout the process.
- **Summer Venue Schedule:** All summer venues (Disc Golf, Adventure Rock, Reflection Plaza AstroTurf, hike & bike trails) are projected to be available upon the opening of the Gondola on May 24<sup>th</sup> except for the Bike Park which is scheduled to open on Monday, June 25<sup>th</sup>. The USFS cross country trails in Prospect Basin will remain closed for elk calving until July 1<sup>st</sup>.
- **Boulevard Trail:** Improvements will be ongoing along Boulevard Trail this summer after receiving public input in conjunction with the trails master planning process.
- **Paddle Courts:** On-going maintenance will take place on the skirting, flaps, and decking around the courts. The winter heating system is scheduled for maintenance as well.
- **Sidewalk Repairs:** On-going concrete sidewalk repair in the Meadows and along the Blvd Trail is scheduled for this summer; some of the problem areas pose trip hazards that will be addressed with this project, especially sections leading into bridges.
- **Bike Park:** The TMV is operating the Bike Park again this summer season with a one-year extension to the license agreement that expired last year. The berms that were removed last fall by TSG in order to facilitate more efficient snowmaking activities will be rebuilt as soon as the snow melts. The Bike Park is scheduled to open the Monday after Bluegrass.
- **USFS Summer Trail Maintenance:** Rec staff, as a part of an MOU with the USFS will continue assisting with maintenance activities on public lands within TSG 's special use permit area, namely on Prospect and Village Trails, with a higher priority on Ridge Trail.
- **Jurassic Trail:** Based on public feedback, several pullouts will be constructed along the length of the trails to provide for a safer multi-user experience.
- **Tennis Courts:** Rec staff will be assisting TSG with pre-season and on-going maintenance at the tennis facility. On the list for this year is more active promotion and management of the venue and continued cosmetic improvements including a massive de-weeding effort and scheduled mowing and trimming around the facility.

TOWN OF MOUNTAIN VILLAGE  
PUBLIC WORKS DEPARTMENT

Item # 15c

SEMI-ANNUAL REPORT TO TOWN COUNCIL

NOVEMBER 1<sup>ST</sup> 2017 - APRIL 30<sup>TH</sup> 2018

PUBLIC WORKS

Director: Finn Kjome; Managers: Robert Haining, Water Dept.; John Owens, Vehicle Maintenance; Nolan Merrill, Road & Bridge; Steven Lehane, Broad Band / Facility Maintenance; JD Wise, Plaza Services.

ROAD AND BRIDGE

Road and Bridge is responsible for the care and maintenance of twenty (20) miles of road, 20 bridges and 8 parking areas as well as inspecting and maintaining 29 miles of sewer lines, 231 manholes and 3 sewer lift stations.

Department Goals

1. Provide snow and ice removal for all the Town's roadways and parking areas to ensure the safest conditions possible in all weather conditions.
2. Complete the initial plow routes within the proscribed time limits; the grader route within 3 hours on light to normal snow days (<6") and 3.25 hours on heavy days (>6"); the snowplow/sand truck route within 1 3/4 hours on light to normal days and 2 hours on heavy days.
3. Provide safe roadways by maintaining quality pavements, shoulders and drainage at a cost advantageous to the Town.
4. Provide quality, cost effective maintenance to all Town facilities as directed.
5. Perform all tasks in the safest possible manner.
6. Perform snow removal procedures and sensitive area mitigation as per the Wetlands Protection Plan.
7. Operate the department within budget.

Performance Measures

1. Track man hours for snow removal compared to snow fall totals.
2. Track the number of snow days that meet or exceed the initial snow route time limits with a goal of 80% or better.
3. Annually track the cost of asphalt patching and pavement repair with the goal of keeping costs below commercial prices.
4. Annually track the cost of facility maintenance with the goal of keeping costs below commercial prices.
5. Track work time lost to injury with zero injuries the goal.
6. Annually inspect and document improvement of wetland protection systems as per the Wetlands Protection Plan.

7. Department year end expenditure totals do not exceed the adopted budget.

#### Performance Report

1. We used 2039.75-man hours for snow removal with 168 inches of snow fall.
2. Snow route completion times were met; 100% on light to normal and 100% on heavy days for the grader route, 95% on light to normal and 93% on heavy days for snow plow/sand truck.
3. Roads and Bridge used 241-man hours filling pot holes in roads and parking lots and crack sealing roads this winter this with a labor cost at \$7038.85 compared to \$36,150 in contractor prices.
4. We had street sweeping costs of \$13,130 compared to \$16,340 in potential contractor cost.
5. There was 0 hours lost due to on the job injury.
6. Mitigation of snow storage and wetland areas has started with debris cleanup and drainage check dams cleaned out. We worked 538-man hours protecting our water ways and wetlands.
7. Department year end expenditures to be calculated in the fall.

#### Staffing

A normal staffing level of 7 operators was maintained for the winter. Road and Bridge had 0 turnover and is currently fully staffed.

#### Training

All equipment operators participated in a Town sponsored sexual harassment class. Most employees went to a 3-day spring street conference in Grand Junction put on by the American Public Works Association. Classes focused on asphalt road repair and maintenance, backflow prevention, load securement and rigging and guard rail maintenance. All operators were trained on the new equipment we purchased this year.

#### Department Projects and Issues

This winter we saw very low snow totals compared to last year. We received snow totals of 168 inches of snow for this season compared to 324 inches last year. The number of days of measurable snow was down over last year, 31 days this year compared to 67 days last year. For total snow removal operations this season the crew spent 2039.75-man hours compared to 3731 last year. The Water Dept. spent 145.25 hours compared to 343 last winter at GPG and the trail to the Mountain Village Core. The total snow removal labor costs compare at \$61,384.64 this year to \$102,662.20 last year.

This summer the crew will be concentrating on in-house patching and pavement maintenance in anticipation of the upcoming asphalt overlays, ongoing repairs to the sewer system, sensitive area mitigation, hazard tree removal and other maintenance projects.

Roads scheduled to be overlaid with asphalt this summer are Arizona Drive and a section of Adams Ranch Road. These roads are slated for a 1 ½ “-2” overlay of new asphalt following the 2018 Road Improvement Plan. Roads scheduled to be overlaid with a chip

seal treatment are Stevens Drive, Hang Glider Drive, Gold Hill Court, Victoria Drive, Vischer Drive Aspen Ridge, Upper Benchmark Drive from Rocky Road to the cul-de-sac and San Sofia Drive.

## WATER

The Water Department is responsible for the operation and maintenance of the water systems of the Mountain Village; systems include Mountain Village, Ski Ranches and West Meadows. The water department staff also serves as the operators for the Elk Run subdivision's water system. The water department is also responsible for snow removal at the Gondola Parking Garage and the trail from Town Hall to the Blue Mesa parking lot.

### Department Goals

1. Provide clean and safe drinking water to the customers of the Mountain Village Water system.
2. Provide prompt and courteous service to all customers, timely locates and inspections on system installations and response to system problems.
3. Maintain the system to a higher level than the industry standard of 10% water loss due to leakage.
4. Maintain regulatory compliance according to all applicable rules and laws that apply to public water systems.
5. Perform an effective maintenance program to reduce costs and lessen severity of breakdowns.
6. Provide service to residents and guests by the timely and cost-effective removal of snow from GPG and walkways.
7. Operating the enterprise does not require general tax subsidy.

### Performance Measures

1. Water consumption with 100% of water sample tests results are without deficiencies.
2. A. Track times for response and resolution of customer service issues and contractor's requests and system emergencies with the objective of same day service.  
B. Track time for response to emergency situations with the goal of one to two hours response.
3. Perform monthly water audit tracking percent of water loss with the objective of less than 10% loss.
4. 100% regulatory compliance.
5. a. Track maintenance costs on hydrants, valves and meters and compare with industry standards.  
b. Reduce down time due to system failures compared with industry standard of no customers without water.
6. Perform snow removal tasks at GPG by 8AM on light to normal (<3") snow days and 9AM (>3") on heavy days with a goal of 90% or greater.

7. Department year end expenditures do not exceed the adopted budget.

#### Performance Report.

1. Water consumption was 177.9 million gallons (Nov.-April) with one deficiency for the system.
2. a. There was 100% response time to customer issues, contractor requests and system emergencies within 24 hours.  
b. There was 100% response time to emergency situations within 2 hours.
3. The water audits indicated 7.09% of water loss.
4. We had no regulatory violation.
5. a. Maintenance costs will be tracked annually. Cost comparisons will be available in the November report.  
b. We had one incident with 6 customers out of water for 4 hours.
6. The snow removal goals at GPG were met on 28 of 31 days a 90% success rate.
7. Department year end expenditures will be calculated in the fall.

#### Staffing

The Water Department staffing level is four.

#### Training

All employees took a sexual harassment class.

#### Department Projects and Issues

The focus of work for the water crew this winter have been daily operations and maintenance of the water system and the snow removal at GPG including the trail from Town Hall to Blue Mesa.

The low snow levels drew out the snow making operation in to February a month longer than usual. Weekly and sometimes daily river level monitoring has taken place all winter. The water supply infrastructure was put to a test but performed as designed. With the continuing dry conditions we have implemented our mandatory water conservation program. Staff is taking calls from residents and irrigation professionals, answering questions and educating about water saving as irrigations systems are turned on for the summer season.

The water department is in the beginning stages of implementing a corrosion control program to help with copper levels at the regional sewer plant.

Water construction project this summer will consist of replacing water lines at the Ski Ranches water tank. This is the beginning of the water infrastructure replacement plan we discussed last fall. Williams Construction was awarded the contract for the project. A new backup generator and building to house it will be constructed for wells 27 and 29. Other summer work will include routine summer maintenance, valve and meter replacement in several locations and continued mapping.

The annual water conservation incentive program is currently under way. The program will incentivize the purchase of “smart controllers.” for irrigation systems through a rebate program.

## VEHICLE MAINTENANCE

The Vehicle Maintenance Department provides repair and preventive maintenance on all Town vehicles and equipment. Vehicle Maintenance staff are responsible for keeping the sidewalk in the Meadows clear of snow for the winter season. They also have duties above and beyond vehicle repair and maintenance such as fabrication for special projects for all departments, biannually changing all the plaza directories maps, annual painting and maintenance of the Gondola Parking Garage and Heritage Garage as well as providing labor and support required to install and remove the Christmas decorations each year. One day a week in the winter a mechanic is a snow plow operator to fill out the schedule.

### Department Goals

1. Provide high level, cost effective service to all departments for their vehicle and equipment maintenance needs while managing expenses to a level below commercial prices.
2. Provide support to all departments on special projects in a timely and cost-effective manner.
3. Perform all tasks in the safest manner possible.
4. Operate the budget within budget.
5. Maintain or reduce natural gas consumption at maintenance shop.

### Performance Measures

1. a. Track total cost of shop operations and compare to outside shop rates.  
b. Track number of preventive maintenance work orders including safety checks and fluid levels completed within 30 minutes for vehicles; with a goal of 80% or better.
2. Special projects completed at a cost compared to any outside source.
3. Track the number of work related injuries with a goal of zero injuries.
4. Department year end expenditures totals do not exceed the adopted budget.
5. Compare current year natural gas usage to year 2013. 2013 Total Natural Gas Therms 5621

### Performance Report

1. a. Maintenance costs will be tracked annually. Cost comparisons will be available in the November report.  
b. There were 56 of 64 vehicle service orders completed within 30 minutes an 88% success rate.

2. One of the Vehicle Maintenance's strong suits is metal fabrication and welding. The Town labor costs for metal fabrication projects were \$8,438.20 compared to \$15,112.50 average contracted prices.
3. Vehicle Maintenance had no time lost for a work-related injury.
4. Year end expenditures to be calculated in the fall.
5. In 2013 the maintenance shop used 5621 therms. and in 2017 the maintenance shop used 4537 therms. a 19% decrease.

#### Staffing

Vehicle Maintenance is at its budgeted level of four mechanics.

#### Training

All mechanics were trained on the maintenance of the new equipment we purchased this winter. All employees took part in the sexual harassment training.

#### Department Projects and Issues

Vehicle Maintenance went back to a 7-day coverage schedule for the winter season. A full time seasonal position was filled to make the schedule work. The seasonal position has been laid off and Vehicle Maintenance is once again back to a 5-day Monday- Friday schedule.

The Vehicle Maintenance staff have been instrumental in all the way finding projects. Without their fabrication skills this project would not be as far along as it is and would have cost the Town thousands more.

## PLAZA SERVICES

Plaza Services is responsible for: the sustainable upkeep of the Town's plazas, lawns, irrigation systems, flower beds, flower pots and hanging baskets; snow and ice removal throughout public plazas; permitting and overseeing plaza vehicle access; providing plaza assistance for fee; performing public trash and recycling collection; special event management; Market on the Plaza production and management; installation and removal of all Christmas decorations for the Town; providing high quality guest service at all times.

#### Department Goals

1. Maintain the Town's public plazas, lawns and gardens to a high standard of care, and safety in an environmentally sustainable manner.
2. Manage third party public plaza uses including Plaza Vehicle Access Permits, Plaza Motorized Cart Permits, Plaza Special Event Permits, and various Plaza HOA and merchant activities with great attention to detail and a high level of customer service.
3. Provide a high level of customer service consistently and professionally.
4. Perform all tasks in the safest possible manner

5. Operate department within adopted budget.

#### Performance Measures

1. Track man hours for lawn and plant care, plaza maintenance and snow removal.
2. Track man hour for events on the plazas compared to number of events
3. Number of departmental customer service tailgate sessions annually
4. Track work time lost to injury with zero injuries as the goal.
5. Operate department at or below adopted budget while continuing to improve services.

#### 2017 Performance Report

1. Plaza Services spent 113-man hours on lawn care, 271 hours on plant care, 2693 hours on plaza maintenance and 965 hours last winter on snow removal.
2. Since November 1st Plaza Services spent 60-man hours to assist with 20 events.
3. Plaza Services held 15 customer service tailgate sessions from Nov. 1-April 30th.
4. There was no time lost due to injuries.
5. Yearend expenditures will be calculated in the fall.

#### Staffing

Plaza Services is at it budgeted level of 9 full time employees and 2 seasonal employees.

#### Training

- a. JD Wise (Manager) and Jessica Quinn (Supervisor) attended the ProGreen conference and trade show in Denver.
- b. Brett Button (Supervisor) completed CPR training taught by Pat Drew.
- c. Christianna Maurer (Assistant Horticulturist) completed Colorado Master Gardener courses and earned certification as a Master Gardener.
- d. Heather Dostaler (Horticulturist) completed Mental Health First Aid
- e. James Owens was nominated and is now serving as Chairperson for the safety committee.

#### Department Projects and Issues

- a. Heather Dostaler has resigned her position of Horticulturist to pursue starting a business in Farmington, NM, where she grew up. Heather's last day will be May 31. Derek Baxter was hired in the position of Horticulturist to fill this vacancy. Derek has a B.S. degree in Plant Science, Horticulture, and Turfgrass Management from Rutgers University. He has worked most recently as a landscape designer for a small private firm, and as a horticulture technician for the Denver Zoological Society at the Denver Zoo. We are happy to welcome Derek to the team.
- b. We have hired two seasonal groundskeepers for the summer season, Yusuf Griffin and Tommy Lininger, both of whom will start working with us in May.
- c. With low snow totals, the winter season saw an increase in activity in the plazas and included many opportunities to keep the plazas clean, and provide great guest service.
- d. Spring projects completed and ongoing include continued paver replacement and repair at the beach, conference center plaza, and sunset plaza; construction of additional

wayfinding monuments and infrastructure; working with the shop on fabrication of new dog bag dispensers to match the wayfinding theme; re-waterproofing of a planter in conference center plaza; landscaping at the South Village Center lot to screen boiler utilities, landscape repair at Oak Street Plaza; and various routine seasonal maintenance projects.

## TRASH AND RECYCLING

The Plaza Services department is responsible for the collection of trash and recycling in Town common areas (not including recreation trails) and the management of hauling and disposal/processing contracts for those materials.

### Department Goals

1. Manage daily public trash and recycling collection and disposal processing efforts in a timely and efficient manner.
2. Ensure a safe waste handling program for all employees.
3. Department shall manage trash contracts and monitor trash expenses to operate within approved budget.

### Performance Measures

1. Ensure 100% town facilities have adequate trash and recycling stations.
2. Track work loss to injuries with zero injuries as the goal.
3. Department year end expenditure totals do not exceed the adopted annual budget year.

### 2017 Performance Report

1. Five new trash and recycling containers arrived and are being placed in additional locations in both the Village Center and the Meadows. We are continuing to observe and take note of any other locations that would benefit from additional trash and recycling containers.
2. There was no time loss due to injuries.
3. Yearend expenditures will be calculated in the fall.

### Department Projects and Issues

It has been brought to staff's attention that the future of recycling plastics 3-7 may be coming to an end. The markets worldwide for these plastics is almost non-existent. We will keep you updated as recycling continues to evolve.



**TOWN OF MOUNTAIN VILLAGE  
TOWN MANAGER  
CURRENT ISSUES AND STATUS REPORT  
MAY 2018**

**1. Great Services Award Program**

- **Great Services Award – April**
  - **Chief Broady, Rachelle Redmond and the entire police department,** nominated by Kim Montgomery. Not only did the department respond to one of the biggest losses of property in Mountain Village in a timely and extremely professional manner but they conducted 24-7 security on the premise for close to a week following the fire. Chief returned from a long-planned vacation to the Caribbean islands, Rachelle stayed on site at the fire until the wee hours of the morning and was back at work again the next morning and the entire department worked excessive hours to keep the site secure as well as Jodi's overwhelming job of cataloguing the evidence collected at such a large scene. In addition, they caringly contacted the owners with the devastating news of the loss and showed a great deal of empathy. They also arranged for food and water for the first responders to ensure they were taken care of while fighting the fire. My great admiration to the team during this incredibly stressful situation -**WINNER FOR MARCH**

**2. IT RFP Status**

- Steven Lehane prepared a executive summary of all four bids received
- We met with the IT RFP committee and narrowed the bidders responses down to the two best submittals
- Steven Lehane will follow up with both companies and have them answer a few more detailed questions identified by the committee
- **Once those are satisfactorily clarified, the Committee will conduct a conference call to narrow the choice down to the top bidder, will notify those who were not chosen as well as the chosen contractor and we will begin negotiating the contract**

**3. Miscellaneous**

- Attended the Tri-County Health Training – Trauma Informed & Resilient Governments
- Attended a half day training as a follow up to Coaching and Teambuilding training
- Attended the Crisis Management Workshop being hosted by Telluride Tourism Board
- Attended the IG meeting hosted by the County on May 14th
- **Please excuse the brevity of this report. There were less than two weeks between the April meeting and the deadline for submission of this report**





ADD TO PACKET  
Send to Town Council

## Solving Problems

It is inevitable that conflicts will arise between the two species most adept at altering the natural world to suit their own needs. Both humans and beavers have built structures that can be seen from space, for example, the Great Wall of China and a half-mile-long beaver dam in Alberta, Canada. But we can solve these problems and benefit from the essential natural services that beaver wetlands provide.

When problems arise, working with the beaver is the best solution. If beavers are removed from good habitat, many studies show that others tend to resettle the habitat. That's because survivors in the area respond with larger litters, and beavers can migrate over tens of miles. Removing beavers, whether by killing, or live-trapping, rarely gives a lasting solution.

In addition, without beavers to keep up a dam, it will disintegrate. The subsequent loss of a vibrant pond often causes many lives to be lost and much environmental damage.

### Is it a Real Problem?

Ignorance about beavers and their role in nature can cause alarm about having these medium-size animals in the neighborhood. Fear of the unknown can lead to exaggeration, such as saying dozens of beavers are present when there are only a few (it is not widely known that one family may have three lodges). In fact, overpopulation is rare, because beavers are territorial and one family typically defends a half mile of streamside territory from strange beavers.

When a beaver fells a tree or floods a few trees, a landowner may panic, unaware that such change is part of nature's cycle. Tree cutting often stimulates more growth in many species, such as willows, aspen and cottonwoods. Willow stumps may sprout three or four new stems in the spring, and poplars resprout from the roots. Plus, there are ways to protect special trees.

Flooding may kill trees, but dead trees provide homes for wood ducks, owls herons and flying squirrels. Such trees are just as important in nature as live ones. Remember, a newly flooded beaver site is apt to be a historic wetland, where trees invaded after it was drained for agriculture. Beaver flooding is limited by geography to a small percent of the landscape wetland, and there are ways to manage undesirable flooding.

### Win-Win Solutions

Allowing the beavers to remain while solving the specific problem (for example, flooded roads or tree cutting), preserves the many beaver benefits. Wetlands are decreasing worldwide, and certain programs, such as the U.S. Wetland Reserve Program, recognize the great environmental value of these vital areas by reimbursing landowners who protect wetlands. The U.S. Fish and Wildlife Service has the Partners for Wildlife program that can provide funding, or materials, for flow devices to qualified agencies or organizations. Freshwater wetlands have been rated in a study by over a dozen ecologists and economists as the world's most valuable terrestrial ecosystem in terms of natural services. By installing flow devices, often most of the beaver wetlands can be saved, while ending the unwanted flooding. Problems with objectionable tree cutting can be solved with fencing or other methods (see "How to Protect Trees").

Proven, cost-effective devices, such as beaver pipes in dams, are installed to control objectionable flooding. Road flooding is a common beaver/human conflict that be solved with methods such as "exclosures," or beaver fences, for example, the Beaver Deceiver. Since beavers are quite adaptable, it is best to use proven techniques.

If beavers must be relocated, using Hancock or Bailey live traps is the best method. Snares hold the victim helpless against predators and can cause death by drowning due to entanglement with the wires used. No kill trap that currently exists will reliably cause a fast death under field conditions, and drowning traps are especially inhumane for animals that can hold their breath for 10 minutes or more. Surviving beavers respond to persecution with larger litters. Because of this species' benefits in creating vital wetlands, and because removal is rarely a lasting solution, working with beavers gives the best results.

**TABLE 19**  
**HISTORIC CONSUMPTIVE USE**

Structure Name	Irrigated Area Description <sup>1</sup>	Period of Record	Consumptive Use (acre-feet) <sup>2</sup>						
			May	Jun	Jul	Aug	Sep	Oct	TOT
Agricultural Ditch <sup>3</sup>	C, H	1970-1974	6.3	18.8	22.1	18.2	10.9	4.3	80.5
Daniels Ditch	D	1971-1974	1.1	2.7	2.5	2.2	1.5	0.6	10.5
Kinnick Ditches	G	1971-1974	2.6	6.0	5.8	4.9	3.3	1.3	23.8
LaSalle Ditch	F	1970-1974	2.8	16.8	19.9	14.4	6.9	1.4	62.1
Lawson Ditch	B	1970-1974	5.0	12.8	13.0	10.4	6.4	2.4	50.0
Prospect Ditches <sup>4</sup>	A, I	1971-1974	13.2	29.9	28.8	24.5	16.4	6.3	119.0
Waddell Ditch	E	1971-1974	2.6	6.7	9.0	6.4	1.8	0.3	26.9
<b>TOTAL</b>			<b>33.6</b>	<b>93.7</b>	<b>101.1</b>	<b>81.0</b>	<b>47.2</b>	<b>16.6</b>	<b>373</b>

<sup>1</sup> See Figure 6.

<sup>2</sup> Estimated consumptive use was calculated using the Blaney-Criddle procedure with the Pochop high altitude correction (U.S. Soil Conservation Service, 1970 and Pochop and Berman, 1987) using weather data from the Weather Service station in Telluride for 1970 to 1974. This period corresponds to the period for which ditch diversion records were available. A ditch loss and ditch lateral loss of 5 percent per mile was used together with a field efficiency of 30 percent.

<sup>3</sup> Includes Agricultural Ditch, Agricultural Ditch Enlargement, and Wagner Ditch.

<sup>4</sup> Includes Prospect Creek Ditch and Little Prospect Creek Ditch.

**TABLE 7**  
**Partial Listing of Absolute Water Rights in the San Miguel River Basin**

DRAFT

Water Right Name	Decreed Amount (cfs)	Adjudication Date	Appropriation Date	Administration Number	Cumulative Amount (cfs)
B C D DITCH	0.5	6/3/1911	10/1/1885	13058.00000	0
NUCLA POWER PLANT DITCH	0.5	6/3/1911	10/1/1885	13058.00000	0.5
GOULDING DITCH	0.65	6/11/1897	10/31/1886	13453.00000	1.15
<b>PROSPECT CREEK DITCH</b>	<b>5.7</b>	<b>6/3/1911</b>	<b>6/10/1890</b>	<b>14771.00000</b>	<b>6.85</b>
GOULDING DITCH	0.13	6/11/1897	10/31/1890	14914.00000	6.98
JOHNSON DITCH	3.8	6/3/1911	4/10/1891	15075.00000	10.78
COTTONWOOD WELL	0.033	12/31/1972	5/1/1891	15096.00000	10.813
<b>LAWSON DITCH</b>	<b>1.3</b>	<b>6/3/1911</b>	<b>6/22/1891</b>	<b>15148.00000</b>	<b>12.113</b>
GOULDING DITCH	0.26	6/11/1897	10/31/1893	16010.00000	12.373
BLESSING DITCH	0.043	6/3/1911	5/1/1894	16192.00000	12.416
RICHARDS PUMP ST NO 1	0.598	6/3/1911	5/1/1894	16192.00000	13.014
MAUPIN DITCH	0.578	6/3/1911	5/1/1894	16192.00000	13.592
RICHARDS PUMP ST NO 2	0	6/3/1911	5/1/1894	16192.00000	13.592
MOORE DITCH	0.031	6/3/1911	5/1/1894	16192.00000	13.623
B C D DITCH	1.75	6/3/1911	12/1/1894	16406.00000	15.373
NUCLA POWER PLANT DITCH	2.5	6/3/1911	12/1/1894	16406.00000	17.873
B C D DITCH PUMPSITE	0.25	6/3/1911	12/1/1894	16406.00000	18.123
HIGHLINE CANAL	31.28	6/3/1911	6/1/1895	16588.00000	49.403
<b>AGRICULTURAL DITCH</b>	<b>1</b>	<b>6/3/1911</b>	<b>6/16/1896</b>	<b>16969.00000</b>	<b>50.403</b>
DOING DITCH	0.5	6/3/1911	7/1/1896	16984.00000	50.903
REED CHATFIELD DITCH	3	6/3/1911	7/1/1896	16984.00000	53.903
RANCHERS EXP & DEV PP&PL	0	6/3/1911	7/1/1896	16984.00000	53.903
WEST VAN CORUM PP & PL	0.5	6/3/1911	7/1/1896	16984.00000	54.403
REED CHATFIELD D ALT PT	0	6/3/1911	7/1/1896	16984.00000	54.403
NATURITA TOWN WELL	0	6/3/1911	7/1/1896	16984.00000	54.403
<b>DANIELS DITCH</b>	<b>0.5</b>	<b>6/3/1911</b>	<b>7/31/1896</b>	<b>17014.00000</b>	<b>54.903</b>
BLESSING DITCH	0.169	6/3/1911	12/8/1896	17144.00000	55.072
RICHARDS PUMP ST NO 1	2.394	6/3/1911	12/8/1896	17144.00000	57.466
MAUPIN DITCH	2.312	6/3/1911	12/8/1896	17144.00000	59.778
RICHARDS PUMP ST NO 2	0	6/3/1911	12/8/1896	17144.00000	59.778
MOORE DITCH	0.125	6/3/1911	12/8/1896	17144.00000	59.903
<b>WADDELL DITCH</b>	<b>0.53</b>	<b>6/3/1911</b>	<b>5/5/1897</b>	<b>17292.00000</b>	<b>60.433</b>
<b>LASALLE DITCH</b>	<b>1.5</b>	<b>6/3/1911</b>	<b>5/28/1898</b>	<b>17680.00000</b>	<b>61.933</b>
<b>WAGNER DITCH</b>	<b>6.25</b>	<b>6/3/1911</b>	<b>5/28/1898</b>	<b>18046.00000</b>	<b>68.183</b>
PARKWAY DITCH	0.8	6/3/1911	4/1/1900	18353.00000	68.983
B C D DITCH	0.75	6/3/1911	11/26/1900	18592.00000	69.733
NUCLA POWER PLANT DITCH	0.75	6/3/1911	11/26/1900	18592.00000	70.483
DOING DITCH	1.37	6/3/1911	10/1/1902	19266.00000	71.853
GOULDING DITCH	0.43	6/3/1911	10/1/1902	19266.00000	72.283
BLESSING DITCH	0	6/3/1911	11/13/1902	19309.00000	72.283
BLESSING DITCH	0.367	6/3/1911	11/15/1902	19311.00000	72.65
RICHARDS PUMP ST NO 1	4.243	6/3/1911	11/15/1902	19311.00000	76.893
MAUPIN DITCH	0.39	6/3/1911	11/15/1902	19311.00000	77.283
RICHARDS PUMP ST NO 2	0	6/3/1911	11/15/1902	19311.00000	77.283
MOORE DITCH	0.156	6/3/1911	11/15/1902	19311.00000	77.439
JOHNSON DITCH	3.75	6/3/1911	2/16/1903	19404.00000	81.189
JOHNSON DITCH	26.2	10/31/1911	2/16/1903	22433.19404	107.389
HIGHLINE CANAL	39.62	9/30/1916	12/8/1908	23681.21526	147.009

**TABLE 7**  
**Partial Listing of Absolute Water Rights in the San Miguel River Basin**

DRAFT

Water Right Name	Decreed Amount (cfs)	Adjudication Date	Appropriation Date	Administration Number	Cumulative Amount (cfs)
JOHNSON DITCH	16.8	9/16/1920	7/21/1913	24379.23212	163.809
FAYETTE PLACER	1	2/26/1929	7/2/1916	25826.24289	164.809
JARRETT DITCH	1	2/26/1929	7/2/1916	25826.24289	165.809
PARKWAY DITCH NEW	2.76	2/26/1929	7/2/1916	25826.24289	168.569
NUCLA POWER PLANT DITCH	1.4	2/26/1929	7/2/1916	25826.24289	169.969
SWEDEN DITCH	1	2/26/1929	7/2/1916	25826.24289	170.969
PARKWAY PUMP NO 1	0	2/26/1929	7/2/1916	25826.24289	170.969
PARKWAY PUMP NO 2	0	2/26/1929	7/2/1916	25826.24289	170.969
BLAKE & PAY SON PUMP STA	6	2/26/1929	9/30/1917	25826.24744	176.969
BLAKE AND PAY SON POWER D	0	2/26/1929	9/30/1917	25826.24744	176.969
HIGHLINE CANAL	10	2/26/1929	10/20/1926	28051.00000	186.969
<b>KINNICK DITCH</b>	<b>1</b>	<b>11/1/1939</b>	<b>6/2/1897</b>	<b>30604.17320</b>	<b>187.969</b>
<b>KINNICK WASTE &amp; SEEP D</b>	<b>0.5</b>	<b>11/1/1939</b>	<b>5/1/1900</b>	<b>30604.18383</b>	<b>188.469</b>
<b>KINNICK DITCH NO 1</b>	<b>0.5</b>	<b>11/1/1939</b>	<b>6/1/1900</b>	<b>30604.18414</b>	<b>188.969</b>
DOLPHIN DITCH	1	11/1/1939	10/22/1926	30604.28053	189.969
LONSWAY DITCH	1.5	11/1/1939	10/22/1926	30604.28053	191.469
STOCKTON SMITH DITCH	1.125	11/1/1939	10/22/1926	30604.28053	192.594
SAN MIGUEL POWER CO CNL	40	11/1/1939	10/22/1926	30604.28053	232.594
RICHARDS PUMP ST NO 1	5.091	11/1/1939	10/22/1926	30604.28053	237.685
SHULTS DITCH	0	11/1/1939	10/22/1926	30604.28053	237.685
MAUPIN DITCH	0.468	11/1/1939	10/22/1926	30604.28053	238.153
RICHARDS PUMP ST NO 2	0	11/1/1939	10/22/1926	30604.28053	238.153
STOCKTON SMITH D NEW LOC	1.5	11/1/1939	10/22/1926	30604.28053	239.653
DOLPHIN DITCH ALT PT	0	11/1/1939	10/22/1926	30604.28053	239.653
MOORE DITCH	0.188	11/1/1939	10/22/1926	30604.28053	239.841
APPLEBAUGH WELL NO1	0	11/1/1939	10/22/1926	30604.28053	239.841
APPLEBAUGH WELL NO2	0	11/1/1939	10/22/1926	30604.28053	239.841
STOCKTON SMITH WELL NO1	0	11/1/1939	10/22/1926	30604.28053	239.841
STOCKTON SMITH WELL NO2	0	11/1/1939	10/22/1926	30604.28053	239.841
RANCHERS EXP & DEV PP&PL	0	11/1/1939	3/15/1928	30604.28563	239.841
GOULDING DITCH	2	11/1/1939	10/15/1928	30604.28777	241.841
BARLOW DITCH	0.5	11/1/1939	4/14/1932	30604.30054	242.341
HIGHLINE CANAL	29.1	11/1/1939	5/1/1932	30604.30071	271.441
REED CHATFIELD DITCH	5.5	11/1/1939	4/1/1934	30771.00000	276.941
REED CHATFIELD D ALT PT	0	11/1/1939	4/1/1934	30771.00000	276.941
NATURITA TOWN WELL	0	11/1/1939	4/1/1934	30771.00000	276.941
BARTOW DITCH	0.6	11/1/1939	5/18/1934	30818.00000	277.541
<b>AGRICULTURAL DITCH ENLARGEMEN</b>	<b>1</b>	<b>11/1/1939</b>	<b>6/10/1935</b>	<b>31206.00000</b>	<b>278.541</b>

**Notes:**

- 1) Water rights owned by Telski are in Bold.
- 2) Except for water rights owned by Telski, partial listing only includes water rights listed under the mainstem of the San Miguel River.
- 3) Source: Colorado Division of Water Resources water rights tabulation. Includes only net amounts of absolute water rights. Does not include abandoned or conditional water rights.

Dear Mountain Village Town Council,

Sheep Mountain Alliance appreciates the Council's past support of the San Juan Mountains Wilderness Bill, which was introduced to Congress last month. We believe that the current bill does an excellent job of toeing the line between compromise and protection, as it includes new provisions that are the result of extensive work with mountain biking groups and the Ouray Silver Mine. The major changes to this bill are the following:

- Expanded mountain biking opportunities have been created to allow for continued use of an informal trail system in Ophir Valley within the Sheep Mountain Special Management Area.
- We have made minor alterations to the boundary of the White House and Liberty Bell additions to accommodate the safety-related requests of the Ouray Silver Mine

We hope that the Mountain Village Town Council will express its thanks to Senator Bennet for reintroducing the Bill, and ask that Senator Gardner and Congressman Tipton add their support to see it through Congress.

In addition, please consider writing to the GMUG National Forest in support of Sheep Mountain Alliance's wilderness recommendations. In our area, these wilderness recommendations align closely with the proposed borders of the recently introduced San Juan Mountains Wilderness Bill. A couple of other additions include a small area on the far west side of the Lizard Head Wilderness, in East Beaver Creek, and an area around Lone Cone to be recommended for Special Management Designation. We believe that both of these areas, which currently lack substantive special designation, are worthy of protection, and we have endeavored to ensure that no conflicting uses exist within these areas. The wilderness inventory process only happens every 30 or so years and this is a chance to make sure that any lands we think might be worthy of protection are included before further development renders them incompatible with wilderness values. I am happy to answer any questions the council may have via phone at (617) 285-4715, or via email at [lexi@sheepmountainalliance.org](mailto:lexi@sheepmountainalliance.org).

Thank you for your time,  
Lexi Tuddenham  
Executive Director  
Sheep Mountain Alliance

# Roof Material Amendments to the Community Development Code (CDC)

Town of Mountain Village

Planning and Development Services Department

May 17, 2018



# VILLAGE CENTER CONCRETE ROOF TILES

- Since 2014, Westile is no longer manufacturing the roof tile used in the Village Center on a majority of the buildings
- Difficulty in maintaining existing roof tiles for building owners and HOA's (ice dams, leaking, broken tiles)
- Limited ability to change concrete roof tile to another material

# HISTORY OF DRB MEETINGS REGARDING ROOF MATERIALS

- December 12, 2017 special DRB roof material meeting
- February 22, 2018 special DRB and Town Council roof material and village center design theme meeting (Oz Architects Presentation)
- March 1, 2018 worksession
- March 29, 2018 worksession
- May 3, 2018 A review and recommendation to Town Council regarding amendments to the CDC regarding Village Center roofing requirements. Unanimous recommendation as presented.

# Outside of the Village Center Permitted Materials - existing



Rusted metal standing seam roof



Rusted corrugated metal roof

# Outside of the Village Center Permitted Roof Materials



Bonderized gray standing seam metal



Black standing seam metal

# Outside of the Village Center Permitted Material



Zinc



Slate

# Outside of the Village Center Permitted Material



Brown Patina Copper



Verde Patina Copper –  
removed as a permitted  
patina

# Outside of the Village Center – With DRB approval



Synthetic Cedar Shake



Solar Roof Tiles

# Village Center Roof Material Amendments

Existing Language in the CDC:

Village Center roofing material shall be concrete tile or synthetic materials that emulate concrete tile of the color burnt sienna except for special copper accent roofs that shall require specific approval of the DRB.

## 3.2 Roof Forms

### Existing Roof Forms

Hip

Gable

Barrel

3:12 - 6:12 Slope

## Design Guidelines

### 175.6 Building Design

#### C. Roof Form

##### 1. Roof Design Elements

Composition of multiple forms that emphasize sloped planes, varied ridgelines and vertical offsets

Dormers may be included to add interest and scale to major roof areas...

The DRB may require long ridgelines to be stepped to avoid long spans of unbroken ridges when such elements are not in proportion to the design and scale of the building...

Roof ridgelines shall step with the topography of the site following the stepped foundations.



## 3.3 Roof Materials

### Existing Roof Materials

Materials: Primary - Concrete Roof Tiles  
Secondary - Metal Seam/Shingle (Copper)

Colors: Primary - Burnt Sienna  
Secondary - Copper Patina

## Design Guidelines

### 175.6 Building Design

#### C. Roof Form

#### 3. Roof Material

All roofing material shall be of a type and quality that will withstand high alpine climate conditions.

Permitted roof material outside the Village Center includes:

- I. Rustic, black or gray standing seam or corrugated metal
- II. Zinc
- III. Minimum 1/2" slate
- IV. Synthetic materials that have been approved by the DRB...

Village Center roofing material shall be concrete tile or synthetic materials that emulate concrete tile of the color burnt sienna except for special copper accent roofs that shall require specific approval of the DRB.

The following roofing materials may be approved by the DRB...

- I. Copper
- II. Galvanized corrugated or standing seam metal (not rusted or reflective)
- III. Synthetic material that accurately emulates wood shakes, concrete and slate tile



# Proposed Permitted Village Center Roof Materials with DRB Approval



# Proposed Permitted Village Center Roof Materials with DRB Approval



Brown Patina Copper



Verde Patina Copper –  
removed as a permitted  
patina

# Proposed Permitted Village Center Roof Materials with DRB Approval



Gray Standing Seam Metal



Black Standing Seam Metal

# Proposed Permitted Village Center Roof Materials with DRB Approval



Zinc

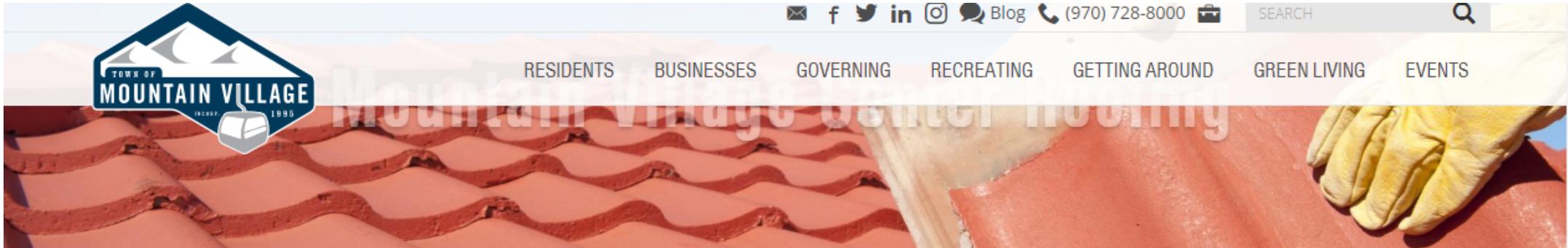
# Proposed Permitted Village Center Roof Materials with DRB Approval



Solar Roof Tiles



Concrete roof tile with variation within a palette



## The Future of Roofing

Rectangular Snip

The **Town of Mountain Village** and the **Telluride Mountain Village Owner's Association (TMVOA)** are working collaboratively to address roof tile options for buildings and owners in the Village Center. The **Community Development Code (CDC)** only allows burnt sienna roof tile in the Village Center.

In 2014 Westile, the manufacturer of the existing roof tile in the Mountain Village Center went out of business. Building owners within the Village Center have found a few challenges, including and not limited to access to existing concrete tile to replace existing and broken tiles, challenges maintaining concrete tile, and a prohibition on proposing any other roof material type.

To address roofing and development code inquiries, the town has compiled the latest information about upcoming public meetings, CDC updates, and general roofing resources, which can be found below:

### Current Process for Re-Roofing in the Village Center

**Under the existing Community Development Code section 17.5.6 C3(d):** Village Center roofing material shall be concrete tile or synthetic materials that emulate concrete tile of the color burnt sienna except for special copper accent roofs that shall require specific approval of the **Design Review Board (DRB)**.

Specific approval of the DRB requires a Class 3 application:

# CONCLUSION

- Staff and DRB recommend adoption as written
- Class 3 Roof applications inside and outside the Village Center will be a reduced fee (\$250 outside of the VC and \$500 inside the VC compared to \$3500), handled administratively until we incorporate the roof fees into the 2018 fee resolution.

QUESTIONS?