

Ridgway Town Council
Regular Meeting Agenda
Wednesday, January 12, 2022

**Due to COVID-19, and pursuant to the Town's Electronic Participation Policy,
the meeting will be conducted via a virtual meeting portal.**

Join Zoom Meeting

<https://us02web.zoom.us/j/85077594821?pwd=TjllTFdxcEVZTHBmWXhUSkpXS1hxUT09>

Meeting ID: 850 7759 4821

Passcode: 477267

Dial by your location

+1 346 248 7799 US

+1 253 215 8782 US

5:30 p.m.

ROLL CALL Councilors Adam Beck, Angela Ferrelli, Kevin Grambley, Beth Lakin, Terry Schuyler, Mayor Pro Tem Russ Meyer and Mayor John Clark

ADDITIONS & DELETIONS TO THE AGENDA

ADOPTION OF CONSENT CALENDAR All matters listed under the consent calendar are considered to be routine by the Town Council and enacted by one motion. The Council has received and considered reports and recommendations prior to assigning consent calendar designations. Copies of the reports are on file in the Town Clerk's Office and are available to the public. There will be no separate discussion on these items. If discussion is requested, that item will be removed from the consent calendar and considered separately.

1. Minutes of the Regular Meeting of December 8, 2021.
2. Pursuant to State Statute designate the Town Hall bulletin board as the official posting place.
3. Register of Demands for January 2022.
4. Renewal of restaurant liquor license for Taco Del Gnar.
5. Renewal of liquor store license for San Juan Liquors.

PUBLIC COMMENTS Established time for the public to address the Council regarding any item not otherwise listed on the agenda. Comments will be limited to 5 minutes per person.

PUBLIC REQUESTS AND PRESENTATIONS Public comments will be limited to 5 minutes per person; discussion of each item may be limited to 20 minutes.

PUBLIC HEARINGS Public comments will be limited to 5 minutes per person; discussion of each item may be limited to 20 minutes.

6. Application for Restaurant Liquor License; Applicant: Richard L. Pinney, Robert B. Collins Jr. and Sierrah S. Mufford members of Rack Stars BBQ LLC dba Lazy Dog Saloon Bar and Grill; Location: 153 N. Highway 550, Unit 1 - Town Clerk.

7. Extension request to meet conditions of approval of Preserve PUD Preliminary Plat; Location: Savath Subdivision Part of Outlot A and Woodford Addition; Address: TBD County Road 23; Zone: Residential (R); Owner: Dalwhinnie Group LLC - Town Manager.

POLICY MATTERS Public comments will be limited to 5 minutes per person; overall discussion of each item may be limited to 20 minutes.

8. Consideration of request by Stryker & Company, Inc. to extend closure of half block of Laura St. between Clinton St. and the alley located halfway between Clinton St. and Charles St. - Town Manager.
9. Resolution No. 22-01 a Resolution of the Town Council of the Town of Ridgway, Colorado, Amending the Policy Relative to Noxious Weed Management - Town Manager.
10. Discussion and direction on regarding graywater use in Ridgway - Town Manager.
11. Review and action on Intergovernmental Agreement between the Town of Ridgway, City of Ouray and Ouray County for Shared Victim Advocate Services - Town Manager.
12. Discussion regarding the Draft Decision Notice and the Environmental Assessment for the Baldy Mountain Landscape Resiliency and Habitat Improvement Project - Town Manager.
13. Discussion regarding an indoor masking requirement at Town facilities - Mayor Clark.

WRITTEN AND VERBAL REPORTS Written reports may be provided for informational purposes prior to the meeting updating Council on various matters that may or may not warrant discussion and action.

14. Town Manager's Report - Town Manager.

COUNCIL COMMITTEE REPORTS Informational verbal reports from Councilors pertaining to the following committees, commissions and organizations:

Committees & Commissions:

Ridgway Planning Commission - Councilor Meyer and Mayor Clark
Ridgway Parks, Trails & Open Space Committee - Councilor Ferrelli
Ridgway Creative District Creative Advocacy Team - Councilor Grambley
Ridgway Scholarship Committee - Councilor Lakin and Mayor Clark

Board Appointments:

Ouray County Weed Board - Councilor Lakin; alternate - Town Engineer
Ouray County Joint Planning Board - Councilor Meyer, citizens Rod Fitzhugh & Tom McKenney;
alternate - Councilor Beck
Sneffels Energy Board - Councilor Lakin and Town Manager; alternate - Mayor Clark
Region 10 Board - Mayor Clark
WestCO Dispatch Board - Town Marshal; alternate - Town Manager
Gunnison Valley Transportation Planning Region - Town Manager
Ouray County Transit Committee - Town Manager
Ouray County Water Users Association - Councilor Meyer
Water and Land Committee for the Uncompahgre Valley - Councilor Meyer; alternate - Town
Manager
Colorado Communities for Climate Action - Councilor Lakin; alternate - Town Manager

Colorado Municipal League Policy Committee - Town Manager

Liaisons:

Chamber of Commerce - Councilmember Lakin
Communities That Care Coalition - Mayor Clark
Ouray County Fairgrounds - Councilor Schuyler

ADJOURNMENT

Deadline for agenda items for next regular meeting, Wednesday, February 9, 2022 at 4:00 p.m.,
Town Clerk's Office, 201 N. Railroad Street, Ridgway, Colorado.

Consent Agenda

RIDGWAY TOWN COUNCIL
MINUTES OF REGULAR MEETING
DECEMBER 8, 2021

CALL TO ORDER

The Town Council convened both in-person at 201 N. Railroad Street, Ridgway, Colorado and via Zoom Meeting, a virtual meeting platform, pursuant to the Town's Electronic Participation Policy.

The Mayor called the meeting to order at 5:30 p.m. In attendance Councilors Ferrelli, Grambley, Lakin, Schuyler, Mayor Pro Tem Meyer and Mayor Clark. Councilor Beck was absent.

CONSENT AGENDA

1. Minutes of the Regular Meeting of November 10, 2021.
2. Minutes of the Budget Workshop Meeting of November 18, 2021.
3. Register of Demands for December 2021.
4. Restaurant liquor license renewal for Thai Paradise.
5. Renewal of tavern liquor license for the Ouray County Fairgrounds.

ACTION:

It was moved by Councilmember Lakin, seconded by Councilmember Schuyler and unanimously carried by a roll call vote to approve the consent agenda.

PUBLIC PRESENTATIONS

6. Presentation of gift from Public Art Ridgway Colorado of the winning painting from the annual Plein Air event

Rick Weaver representing Public Art Ridgway Colorado (PARC) presented the Town with the winning painting from the 9th annual PARC Plein Air event, for addition to the collection at Town Hall. He introduced the winning artist Barbara Kendrick, who received a \$500 prize.

7. Recognition of employee Diedra Silbert for service to the Town

The Town Manager announced Diedra Silbert is retiring after eight years of service to the Town, and recognized her efforts representing the Town as the Community Initiatives Facilitator. The Mayor and Council thanked Ms. Silbert for overseeing the Creative District and Main Street programs.

8. Request to host the annual San Juan Rural Philanthropy Days

Manager Preston Neill explained the Town has been approached by Community Resource Center to serve as the host community for the Rural Philanthropy Days Conference June 7-9, 2022.

Nellie Stagg, Senior Program Director for Community Resource Center, explained the non-profit organization supports local governments and non-profit groups to “bring communities together”. She reported a local steering committee is planning the annual regional event for Rural Philanthropy Days. The annual conference rotates within eight regions throughout the State, and this year will be held in the San Juan Region. The committee is considering the event to be held in Ridgway, she explained. The conference brings together the non-profit sector with state wide funding agencies to discuss grant funding opportunities to “help bring grant funding to rural communities”. She noted in the “early 90’s three percent of funding went to rural regions, now 21% of statewide funding to non-profits goes to rural areas”. The conference also provides training, workshops and panel discussions, and encourages non-profit organizations to “engage with”, and “build relationships and network” with local governments.

Ms. Stagg added, the three day conference will bring 300 individuals from non-profit organizations and funding foundations together into the community, which will “boost the local economy” and “highlight local non-profits”.

There was discussion by the Council and it was agreed staff can assist with facilitating needs for the conference.

ACTION:

Councilor Lakin moved to approve the Mayor signing the letter of intent to host the Rural Philanthropy Days, Mayor Pro Tem Meyer seconded and on a roll call vote, the motion carried unanimously.

9. Request to use the Town parking lot adjacent to the library during Skijoring event

The Town Clerk reported the Skijoring event to be held on January 8th and 9th, has requested use of the Town parking lot to the south of the library. Event goers will be shuttled from the parking lot to the fairgrounds, she noted.

ACTION:

Moved by Councilmember Lakin, seconded by Mayor Pro Tem Meyer and unanimously carried by a roll call vote to approve the request to use the Town parking lot adjacent to the library for parking during the Skijoring event on January 8 and 9, 2022.

10. Presentation of the Uncompahgre River Corridor Ecological Assessment

Staff Report from the Town Manager dated 12-3-21 presenting the Uncompahgre River Corridor Ecological Assessment and Recommendations Report and the River Channel Characteristics Technical Report.

The Town Manager explained the Town retained DHM Design to prepare a River Corridor Assessment with a comprehensive analysis of the existing ecological communities and the current condition within the Uncompahgre River corridor. DHM’s Ecological Services staff completed a comprehensive site analysis to evaluate existing conditions, opportunities and constraints as they relate to current and future management of the river corridor through Town.

Representatives from DHM Design and Lotic Hydrological presented the reports completed this fall which assessed the river corridor to the south, north, and through Town, including a 200 foot buffer along the assessment area. The reports determined existing river conditions,

ecological conditions to the corridor riparian, hydrology relative to the head waters and change types in the river area. It was reported “what is seen as sediment from a confined river channel” “due to a braided upstream river transition” “may appear unsightly” “is not an unnatural river channel” and “is not out of balance with itself”. In relation to the “structures placed in the mid 2000’s” “some are still functioning” with “erosion activity taking place”. After evaluating the individual structures it was determined they can be reused or relocated “to make the river more effective” and utilized to protect the riparian habitat. The ecological assessment addressed the riparian corridor and wetland habitats, along with a vegetative analysis, and it was noted “there is good diversity of habitat types for wildlife and a wide buffer along the river corridor”. The report identified areas of noxious weeds which “need control” and the recommendation was made for “future planning to control it before it starts to spread”. The reports include recommendations on wetland creation, habitat preservation, identified areas for bank and slope stabilization, hydraulic restoration opportunities, riparian planting and benchmarks, and also identifies grant funding opportunities for the recommended project types and general cost information.

There were questions from the Council. After discussion the Council agreed to address some of the items in the report in the next fiscal year, highlighting the removal of noxious weeds.

11. Presentation regarding the Amelia Street Paving Project relative to the climate crisis

The Mayor explained to the audience the Council recently received an engineering report on a project to pave and install sidewalks along Lena Street, but Council has not earmarked any funding for the project in 2022.

Dana Ivers explained she has concerns regarding the “character and sustainability of Town” as it relates to “climate change and growth impacts”. She presented environmental concerns regarding paving of streets, noting the emission of greenhouse gases and use of fossil fuel to produce pavement. She asked the Council to consider “tabling all paving until carbon sequestrant materials are available”. She noted the placement of “speed bumps will help slow traffic”, along with the use of “planters”; and agrees pedestrian walkways should be placed, and suggested the use of “decarbonized granite products which percolate down, and do not have run off”. She encouraged the “retention and replacement of trees to bring down heat”, and spoke in support of a “climate action plan for Town”, including “creation of a local environmental board to focus on issues in Town” and “use of solar power in developments”. She also asked the Council to place a “moratorium on building until we see what the drought is doing”.

SPEAKING FROM THE AUDIENCE:

Beth Hight noted items presented were “some great concepts for the future” noting “pavement doesn’t have to be the only way to go”. She expressed concerns with rain which “drains off Amelia Street” and the lack of sidewalks for students to access the elementary school.

Alice Billings expressed concerns with the number of vehicles which “speed down County Road 5” and “ignore the stop sign” and stated “paving that road will be a disaster”.

Vicki Hawse spoke in “support of efforts to plant more trees” and “consideration of a moratorium on building”.

The Mayor stated the Town, through a memorandum of understanding with the County, should be taking on growth for the County.

PUBLIC HEARINGS

12. Adoption of the 2022 Fiscal Year Budget and setting of Property Tax Levies for 2022

Staff Report from the Town Clerk/Treasurer dated 12-3-21 presenting the Fiscal Year 2022 Budget and Mill Levy.

The Clerk/Treasurer reported the notice of adoption of the fiscal year budget was published on October 14th after presentation of the draft document to the Council. Numerous meetings and hearings were held to discuss the draft budget and capital improvement plans, and the Council is being asked to approve the budget and set the mill levy for the 2022 fiscal year through adoption of a series of resolutions.

ACTION:

It was moved by Councilor Lakin, seconded by Mayor Pro Tem Meyer to adopt Resolution No. 21-10 of the Town of Ridgway, Adopting a Budget for the Calendar Year Beginning on the First Day of January 2022, and Ending on the Last Day of December 2022. After a roll call vote the motion carried unanimously.

ACTION:

Mayor Pro Tem Meyer moved to adopt Resolution No. 21-11 of the Town of Ridgway, Appropriating Sums of Money to the Various Funds in the Amount and for the Purpose as Set Forth Below for the 2022 Budget Year. Councilor Lakin seconded the motion, which carried unanimously on a roll call vote.

ACTION:

Moved by Councilor Schuyler to adopt Resolution No. 21-12 of the Town of Ridgway, Adopting the Property Tax Levy for the Year 2022 for Certification to the Ouray County Commissioners, seconded by Councilor Grambley, and carried unanimously on a roll call vote.

POLICY MATTERS

13. Adoption of the 2022 Five and Ten Year Capital Improvement Plans

The Town Clerk/Treasurer presented the 2022 Five and Ten Year Capital Improvement Plans.

ACTION:

Councilmember Lakin moved, with Councilor Ferrelli seconding to adopt the Five and Ten Year Capital Improvement Plans. The motion carried unanimously on a roll call vote.

14. Adoption of the 2022 Strategic Plan

The Town Manager presented the final draft of the 2022 Strategic Plan.

There was discussion by Council and one change was made to the document.

ACTION:

Moved by Councilor Lakin, seconded by Mayor Pro Tem Meyer and approved by a roll call vote to adopt the 2022 Strategic Plan with the amendment as given.

15. Revocable Encroachment Permit for use of Town property relative to the Old Ridgway Firehouse Project

Staff Report from the Town Manager dated 12-3-21 presenting a revocable encroachment permit for use of the Town sidewalk on N. Lena Street in front of the Old Firehouse.

Manager Neill reported the item was continued from the previous meeting and staff has confirmed there is no State requirement relative to barriers to delineate liquor licensed premises with railing or fencing from public sidewalks, as barriers are “up to the local jurisdiction”.

Applicant Patrick O’Leary, speaking on behalf of the Old Ridgway Firehouse Project stated “we need to have a strong outdoor dining presence in front of the Firehouse” noting “to the south” there are use constraints and “we don’t have the same limitations because of the sidewalk” and are “requesting 11 feet and that leaves 7 feet” of sidewalk for pedestrian traffic. He noted it is “our intent to define the area with planters” and “as of now are not planning to have a railing”.

ACTION:

Councilor Lakin moved to approve the encroachment permit for use of Town property related to the Old Ridgway Firehouse Project. With the motion on the floor there was discussion. Councilmember Schuyler seconded the motion, which carried unanimously on a roll call vote.

16. Agreement for Legal Services with Bo James Nerlin, P.C.

Manager Neill introduced an agreement for 2022 legal services with Bo Nerlin, noting it mirrors the agreement currently in place.

ACTION:

Moved by Mayor Pro Tem Meyer to approve the agreement for legal services with Bo James Nerlin P.C. Seconded by Councilor Grambley the motion carried unanimously on a roll call vote.

MISCELLANEOUS REPORTS

Manager Neill highlighted some of the items contained in the monthly managers report.

The Mayor Pro Tem gave an update on the water committee.

ADJOURNMENT

The meeting adjourned at 7:45 p.m.

Respectfully Submitted,

Pam Kraft, MMC
Town Clerk

Town of Ridgway
Register of Demands
 January 2022

Name	Memo	Account	Paid Amount
Quill.com		Alpine-Operating Account	
		541GOO · Office Supplies	-125.43
		541GOO · Office Supplies	-17.59
		941SOO · Office Supplies	-5.00
		541GOO · Office Supplies	-14.96
TOTAL			-162.98
Montrose Water Factory, LLC		Alpine-Operating Account	
		632GO2 · Supplies & Materials	-7.38
		732POO · Supplies & Materials	-7.37
		932SOO · Supplies & Materials	-7.38
		932WOO · Supplies & Materials	-7.37
TOTAL			-29.50
Rocky Mountain Aggregate & C...		Alpine-Operating Account	
		635GO2 · Gravel & Sand	-523.41
TOTAL			-523.41
Fishbone Graphics & Screen Pr...		Alpine-Operating Account	
	shirts	734POO · Safety Equipment	-222.44
	shirts	634GO2 · Safety Equipment	-222.43
	shirts	934WOO · Safety Equipment	-222.44
	shirts	934SOO · Safety Equipment	-222.44
TOTAL			-889.75
NAPA		Alpine-Operating Account	
	grease fittings - all vehicles	661GO2 · Vehicle & Equip Maint & Repair	-17.88
	grease fittings - all vehicles	761POO · Vehicle & Equip Maint & Repair	-17.89
	grease fittings - all vehicles	961WOO · Vehicle & Equip Maint & Repair	-17.89
	grease fittings - all vehicles	961SOO · Vehicle & Equip Maint & Repair	-17.89
	battery - 2006 dump	661GO2 · Vehicle & Equip Maint & Repair	-51.94
	battery - 2006 dump	961WOO · Vehicle & Equip Maint & Repair	-51.94
	battery - 2006 dump	961SOO · Vehicle & Equip Maint & Repair	-51.94
	fitting	932WOO · Supplies & Materials	-4.69
TOTAL			-232.06
Hartman Brothers Inc		Alpine-Operating Account	
		661GO2 · Vehicle & Equip Maint & Repair	-26.77
		961SOO · Vehicle & Equip Maint & Repair	-26.77
		961WOO · Vehicle & Equip Maint & Repair	-26.76
TOTAL			-80.30

Town of Ridgway
Register of Demands
 January 2022

Name	Memo	Account	Paid Amount
Pro Velocity		Alpine-Operating Account	
		556GOO · IT Services	-170.00
		917WOO · IT Services	-85.00
		917SOO · IT Services	-85.00
	Jan 2022	556GOO · IT Services	-613.83
	Jan 2022	615GO2 · IT Services	-613.83
	Jan 2022	729POO · IT	-613.83
	Jan 2022	820GO3 · IT Services	-613.83
	Jan 2022	917WOO · IT Services	-583.34
	Jan 2022	917SOO · IT Services	-583.34
TOTAL			-3,962.00
SGM		Alpine-Operating Account	
	thru 12/11/21	552GOO · GIS Mapping - admin	-113.66
	thru 12/11/21	952WOO · GIS Mapping - water	-113.67
	thru 12/11/21	952SOO · GIS Mapping - sewer	-113.67
TOTAL			-341.00
UNCC		Alpine-Operating Account	
		915WOO · Dues & memberships	-25.08
		915SOO · Dues & Memberships	-25.08
TOTAL			-50.16
True Value		Alpine-Operating Account	
		632GO2 · Supplies & Materials	-171.19
		661GO2 · Vehicle & Equip Maint & Repair	-26.43
		732POO · Supplies & Materials	-59.44
		761POO · Vehicle & Equip Maint & Repair	-27.71
		732PO1 · Supplies - c cntr/t hall	-37.81
		961SOO · Vehicle & Equip Maint & Repair	-6.96
		932SOO · Supplies & Materials	-141.74
		932WOO · Supplies & Materials	-137.82
		961WOO · Vehicle & Equip Maint & Repair	-6.96
TOTAL			-616.06
Abel's Ace Hardware		Alpine-Operating Account	
	bulbs (2)	638GO2 · Street Lighting	-19.98
TOTAL			-19.98
Honnen Equipment Company		Alpine-Operating Account	
	injection nozzle - backhoe	961WOO · Vehicle & Equip Maint & Repair	-54.74
	bracket & steps - grader	661GO2 · Vehicle & Equip Maint & Repair	-275.35
	bracket & steps - grader	961WOO · Vehicle & Equip Maint & Repair	-91.78
TOTAL			-421.87
ASCAP		Alpine-Operating Account	
	use of music @ public events	533GOO · Economic Development	-390.00
TOTAL			-390.00

Town of Ridgway
Register of Demands
January 2022

Name	Memo	Account	Paid Amount
Caselle Inc			
		Alpine-Operating Account	
	Jan 2022	914SOO · Consulting & Engineering Servs	-159.50
	Jan 2022	914WOO · Consulting & Engineering Ser...	-159.50
TOTAL			-319.00
SGS Accutest Inc			
		Alpine-Operating Account	
		990WOO · Testing - water	-396.22
TOTAL			-396.22
Clear Networx, LLC			
		Alpine-Operating Account	
	Jan 2022	543GOO · Telephone	-56.00
	Jan 2022	643GO2 · Telephone	-56.00
	Jan 2022	843GO3 · Telephone	-61.00
	Jan 2022	943WOO · Telephone	-56.00
	Jan 2022	943SOO · Telephone	-56.00
	Jan 2022	530GOO · Computer	-50.00
	Jan 2022	630GO2 · Computer	-50.00
	Jan 2022	730POO · Computer	-50.00
	Jan 2022	830GO3 · Computer	-50.00
	Jan 2022	930WOO · Computer	-50.00
	Jan 2022	930SOO · Computer	-50.00
	Jan 2022	930WOO · Computer	-50.00
	Jan 2022	930SOO · Computer	-25.00
	Jan 2022	630GO2 · Computer	-25.00
	Jan 2022	843GO3 · Telephone	-55.00
TOTAL			-740.00
SESAC			
		Alpine-Operating Account	
	use of music @ public events	533GOO · Economic Development	-513.00
TOTAL			-513.00
Blue360 Media			
		Alpine-Operating Account	
	peace officer's handbooks (5)	884GO3 · Traffic & Investigations	-358.05
TOTAL			-358.05
Amerigas			
		Alpine-Operating Account	
	propane - wtr plant	942WOO · Utilities	-2,664.76
TOTAL			-2,664.76
Tourism Council of Carbondale			
		Alpine-Operating Account	
	CO Creative Corridor - 2022	532GOO · Creative/Main Street Program	-2,500.00
TOTAL			-2,500.00
CML			
		Alpine-Operating Account	
	CML 2022	522GOO · Dues & Memberships	-1,346.00
TOTAL			-1,346.00

Town of Ridgway
Register of Demands
 January 2022

Name	Memo	Account	Paid Amount
Potential Power Systems, LLC		Alpine-Operating Account	
	generator electrical connection @ plant	931WOO · Maintenance & Repairs	-8,464.31
TOTAL			-8,464.31
Copy Cats		Alpine-Operating Account	
	PC nameplate	546GOO · Council/PC - Materials/Equip...	-19.08
TOTAL			-19.08
Black Hills Energy-Hartwell Park		Alpine-Operating Account	
		742POO · Utilities	-70.12
TOTAL			-70.12
Verizon Wireless		Alpine-Operating Account	
	cell phone - Preston	571GOO · Office Equipment Purchase	-269.96
		741POO · Telephone	-55.83
		943SOO · Telephone	-64.70
		943WOO · Telephone	-112.55
		843GO3 · Telephone	-162.20
		543GOO · Telephone	-91.10
		643GO2 · Telephone	-55.83
		552GOO · GIS Mapping - admin	-10.01
		952SOO · GIS Mapping - sewer	-10.01
		952WOO · GIS Mapping - water	-50.01
		830GO3 · Computer	-160.03
TOTAL			-1,042.23
CIRSA		Alpine-Operating Account	
		920SOO · Insurance (Property/Casualty)	-9,302.32
TOTAL			-9,302.32
CIRSA		Alpine-Operating Account	
	equip. breakdown	920WOO · Insurance (Property/Casualty)	-251.03
	equip. breakdown	920SOO · Insurance (Property/Casualty)	-251.02
TOTAL			-502.05

AGENDA ITEM #6

STAFF REPORT

Subject: Restaurant Liquor License Application – Lazy Dog Saloon Bar & Grill
Initiated By: Pam Kraft, MMC, Town Clerk
Date: December 8, 2021

BACKGROUND:

The Town has received an application for a Restaurant Liquor License from Richard L. Pinney, Robert B. Collins Jr and Sierrah S. Mufford, members of Rack Stars BBQ LLC, to license the premise at 153 N. Highway 550, Unit 1, to operate a restaurant called Lazy Dog Saloon Bar and Grill. The request before the Council is to license the facility, the existing patio to the south side of the building, and a new patio on the west side of the facility. The applicants are also requesting concurrent review of said license, which requires approval to operate the establishment prior to receipt of a state issued liquor license.

State law requires a public hearing before the local jurisdiction for application of a new liquor license. A notice of hearing before the Town Council has been posted and published, and the premises posted, in accordance with state statutes. All requirements of license application have been met, all fees paid, and all forms received.

ANALYSIS:

Rack Stars BBQ LLC is leasing the property at 153 N. Highway 550, Unit 1 from Sunrise Building LLC to operate a business which will be called Lazy Dog Sal Bar and Grill. The term of the lease expires on September 14, 2024.

Options Analysis

The application hearing is a quasi-judicial proceeding and the local licensing authority (Town Council) must allow any party in interest to present evidence and to cross-examine witnesses. A new license application generally cannot be received or acted upon for any type of liquor establishment within 500 feet of any public or parochial school or the principal campus of any college, university, or seminary unless the local licensing authority has waived this requirement. A license may not be issued to any sheriff or deputy, or police officer or a person under the age of 21 years of age. No license may be issued to or held by any person who is not of good moral character and any person employing, assisted by, or financed in whole or part by any other person who is not of good moral character and reputation satisfactory to the licensing authority.

Option 1. State statute requires that a decision of the local authority to approve or deny a license must be made within 30 days after the date of the public hearing; the local authority must determine that the building where the licensee will operate is ready for occupancy.

ATTACHMENT 1. Notice of Public Hearing
ATTACHMENT 2. Premises map

NOTE: All documents are on file in my office and are open to Council inspection

NOTICE OF PUBLIC HEARING FOR LIQUOR LICENSE

NOTICE IS HEREBY GIVEN that the Ridgway Town Council will hold a Public Hearing on Wednesday, January 12, 2022 at 5:30 p.m. to consider **Restaurant Liquor License for Lazy Dog Saloon; Applicant: Rack Stars BBQ LLC; Application filed on: December 8, 2021; to operate at 153 Highway 550, Unit #1.**

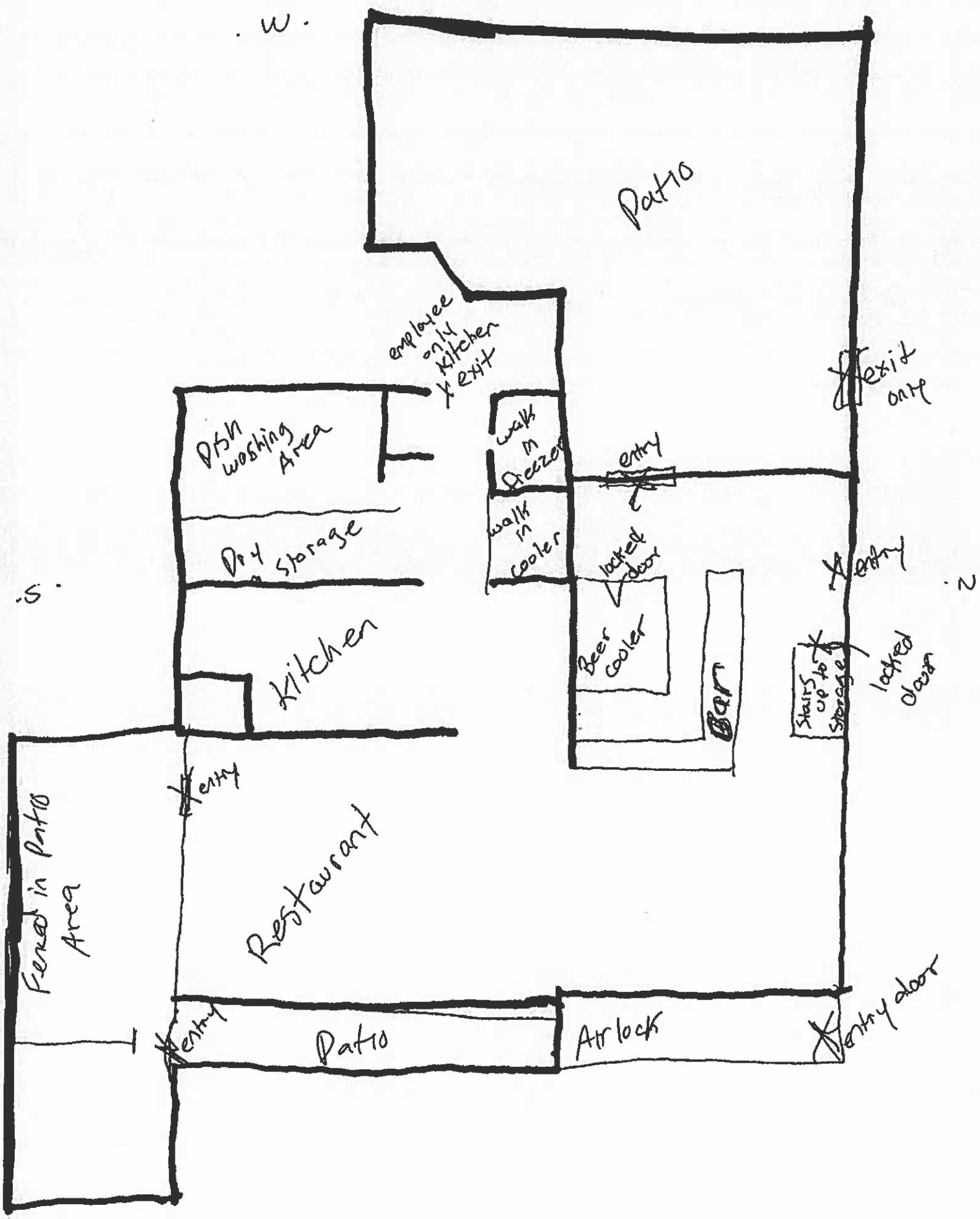
All persons interested in the aforementioned application may appear before the Council either in person or represented by counsel, and present testimony, or may submit written correspondence to the Town Clerk, Town of Ridgway, P.O. Box 10, Ridgway, CO 81432 or pkraft@town.ridgway.co.us

DATED: December 8, 2021

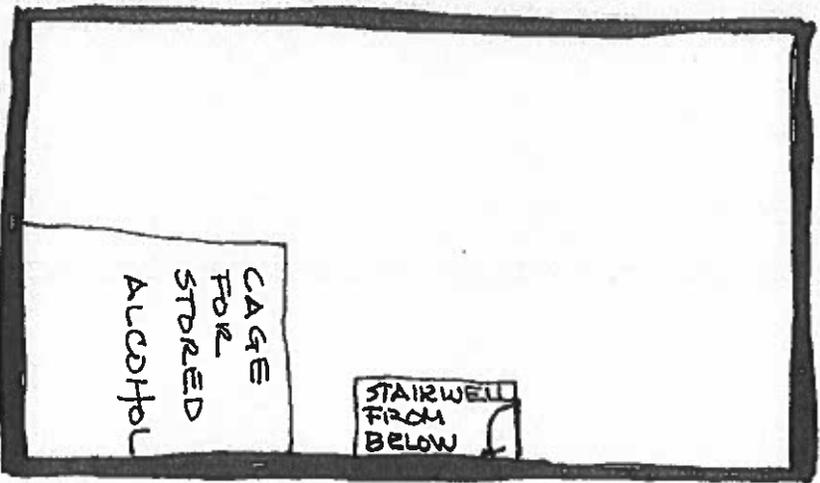


Pam Kraft, MMC, Town Clerk

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UPSTAIRS

AGENDA ITEM #7



To: Honorable Mayor Clark and Ridgway Town Council
From: Preston Neill, Town Manager
Date: January 6, 2022
Agenda Topic: **Extension request to meet conditions of approval of Preserve PUD Preliminary Plat**

ACTION BEFORE COUNCIL:

Council is asked to consider a two-year extension for the Preserve PUD Preliminary Plat approval initially granted on March 14, 2018 and subsequently extended on March 11, 2020. If approved, the extension would allow the applicant another two years to meet the conditions assigned with the Preliminary Plat approval.

PROPOSED MOTION

“I move to [approve/deny] an extension for the Preserve PUD Preliminary Plat, Savath Subdivision part of Outlot A and the Woodford Addition, for a period of [two] years with the [same or edited as follows] conditions assigned at the March 14, 2018 approval and to allow up to [two] years to meet those conditions.”

BACKGROUND:

The Preserve PUD previously received Preliminary Plat approval from the Council 2006. At that time some of the infrastructure improvements were completed and a one-year extension was granted by the Council in September 2007. After that, the project was put on hold, likely due to the economic recession and the Town worked with the owner to essentially close up the project and ensure the site was safe.

In 2018 and in an effort to retain the investment made in the development to date, the property owner at the time reapplied for Preliminary Plat as the previous Preliminary Plat approval had long expired. The Sketch Plan and Preliminary Plat hearings were held with the Planning Commission on February 23, 2018. The Commission approved the Sketch Plan and recommended approval of the Preliminary Plat to Council, subject to the conditions in the staff report with a few additional conditions including a two-year period, rather than the 90 days allowed by the code, to meet the conditions. The Preliminary Plat hearing was then held with the Council on March 14, 2018. Council approved the Preliminary Plat subject to all of the conditions listed in the staff report which included the conditions added by the Planning Commission. All conditions were to be met by March 14, 2020.

It's worth noting that a large section of this property falls within the Uncompahgre River Overlay District (UROD), but the property is not currently subject to the UROD's river corridor development regulations. Ordinance No. 18-01 amending the Town's official zoning map to provide for the UROD and creating river corridor development regulations was adopted in March of 2018, shortly after the initial Preserve PUD Preliminary Plat approval on March 14, 2018.

This property was sold in October 2018 to Dalwhinnie Group LLC. The Town met with the new owner just before closing in October 2018 and then again in September 2019. Staff believes the owner made some progress in that year on items like coordination with the USACOE on wetlands and floodplain issues, assessing what infrastructure improvements had been made, and beginning to work on the CDPHE lift station permits.



On March 11, 2020, the owner requested and was granted a two-year extension to the Preliminary Plat approval. The owner is now requesting another two-year extension to the Preliminary Plat approval, meaning the owner would have an additional two years to meet the conditions assigned with the approval from March 14, 2018. The Municipal Code allows for extension of Preliminary Plat approval for good cause and allows for Council to grant additional time to meet conditions. The applicable Code sections are provided below.

7-4-5(B) Preliminary Plat

(10) Except as otherwise expressly provided by the Town Council, all conditions of approval shall be met within 90 days of such approval or the plat shall be deemed disapproved.

7-4-5(C) Final Plat

(1)(c) No final plat may be scheduled for a Planning Commission hearing more than two years after approval of the preliminary plat, without resubmitting the preliminary plat for review pursuant to 7-4-5(B) unless;

- (i) within two years of approval of a final plat of a previous filing, or*
- (ii) the Town Council authorizes an extension for good cause shown, such as adverse market conditions, in conjunction with substantial progress on infrastructure and approval of a final plat of previous filings in accordance with an approved phasing plan.*

ATTACHMENTS:

Attachment 1 – Extension request from Chris Hawkins on behalf of Dalwhinnie Group LLC

Attachment 2 – Staff Report dated March 9, 2018 regarding Sketch Plan and Preliminary Plat

ATTACHMENT 1

Alpine Planning, LLC

P.O. Box 654 | Ridgway, CO 81432 | 970.964.7927 | chris@alpineplanningllc.com



Town of Ridgway
Town Council
P.O. Box 10
Ridgway, CO 81432-0010

December 31, 2021

Dear Town Council Members,

Please accept this letter on behalf of the Dalwhinnie Group LLC (“**Dalwhinnie**”) requesting an extension to the Preserve Preliminary Plat and PUD that is located on the Savath Subdivision Part of Outlot A and Woodford Addition (“**Property**”). The Town Council approved the sketch plan and preliminary plat for the Preserve Planned Unit Development on March 14, 2018, subject to specific conditions (“**Town Approval**”). The Town Council unanimously approved a two-year extension of the preliminary plat on March 11, 2020. Immediately after this approval the entire world changed with Covid-19 and massive slowdowns in the economy and other unanticipated impacts.

Dalwhinnie bought the Property in October 2018 and has been addressing the Town Approval conditions. The biggest task to-date has been completing the required United States Army Corps of Engineers permit work around the Uncompahgre River that is a great community benefit due to the river habitat restoration. Dalwhinnie also completed survey and engineering work to establish the floodplain areas. The Dalwhinnie team has also made progress on the Town Approval conditions and spent approximately six months exploring whether a sewer line route down the Liddell Drive Right-of-Way was feasible to eliminate the approved lift station; however, in the end it was cost restrictive, too deep and did not eliminate the need for a lift station.

Dalwhinnie submits that an extensive amount of time, work and money have been spent on the Town-approved subdivision, including excavating the areas under the lots to build a French drain system due to soils conditions, the installation of the main sewer line to the lift station site, and the start of other utility installation work. Several elements of the lift station are also present on the Property and ready for installation; two subdivision roads have been rough graded; and the overall subdivision drainage system has been constructed. Dalwhinnie has an excavation proposal/contract in hand for the subdivision work, with the intent to start this work as soon as practicable in the Spring of 2022.

Dalwhinnie is seeking a two-year extension for the subdivision work to March 2024 primarily due to the Covid-19 delays and impacts, but also including extreme economic swings, consulting delays, increased material costs and a significant regional contractor shortage to complete the work.

In addition, Dalwhinnie did not want to move forward with the construction of the subdivision with the blighted light industrial property across the river. This property, located at 22327 Highway 550, has been historically used as a gravel pit and light industrial site that currently contains a marijuana grow operation, unsightly outdoor storage, large disturbed and unvegetated areas, blighted buildings, and junk. Dalwhinnie recently acquired this blighted property with the intent to demolish the greenhouses, clean up the entire lot by removing junk and rubbish, and revegetate disturbed areas that will improve

ATTACHMENT 1

the overall environmental conditions along the Uncompahgre River. This purchase and clean-up will improve the potential property values within the Preserve PUD (and, indeed, many other nearby properties), and provide a significant community benefit to Ridgway, the Ouray Valley, and the Uncompahgre River watershed with significantly improved viewsheds from most areas on the south side of town. It took over a year to negotiate the purchase transaction for the blighted property, which is a further reason for the delayed subdivision construction. It is also important to remember that the subdivision has Lot 20 with four (4) affordable housing units that provide an important and much-needed community benefit.

Dalwhinnie respectfully requests a two-year extension for the preliminary plat approval, to and including March 14, 2024 to allow time for construction in 2022-2023 and the required Town Final Plat process, which will take several months once the subdivision work is completed. The two-year extension will hopefully allow for materials prices to stabilize and ensure there is a buffer in case of another major shutdown due to Covid-19 or other future economic event. Dalwhinnie will not seek another extension if the Town Council approves this request.

Thank you for considering the requested extension and the broad community benefits provided by Dalwhinnie.

Respectfully Submitted,

Chris Hawkins

Digitally signed by Chris
Hawkins
Date: 2022.01.03 09:03:45 -07'00'

Chris Hawkins, AICP
Alpine Planning, LLC

ATTACHMENT 2

STAFF REPORT

To: Town Council
Request: Sketch Plan / Preliminary Plat
Subdivision: Preserve PUD
Legal: Savath Subdivision Part of Outlot A and Woodford Addition SW ¼ S: 16 T: 45 R: 8
Address: TBD County Road 23
Parcel #: 430516400007
Zone: Residential
Applicant: Del-Mont Consultants
Owners: Ridgway River Development, LLC (RRD, LLC)
Initiated By: Jen Coates, Town Manager
Date: March 9, 2018

BACKGROUND:

See attached staff report dated February 23, 2018 with sketch plan/preliminary plat packet for the Planning Commission public hearing on February 27, 2018.

As part of the Planning Commission recommendation, the following conditions were to be completed before any preliminary plat public hearing with the Town Council:

1. Confirm water and sewer usage figures – emailed to Town Staff on March 5, 2018.
2. Resolution on Affordable Housing notes to propose to Town Council – emailed to Town Staff on March 7, 2018 with review ongoing at time of this report.
3. Incorporate into the subdivision approval file:
 - a. Final drainage and storm water calculations – approved on 10/2008; staff pulled from file on March 9, 2018
 - b. Final hydraulic calculations – approved on 4/9/2008; staff pulled from file on March 9, 2018
 - c. Final cut and fill calculations – Town does not have these on file; need from Applicant.

PLANNING COMMISSION RECOMMENDATION

The Planning Commission unanimously recommended approval of the Sketch Plan. The Commission also unanimously recommended approval of the preliminary plat with all of the conditions listed in the February 23, 2018 staff report, with the following modifications:

1. Verbiage on plat note 4 on page 8 of staff report be changed to include language regarding a significant event that may have altered the previously surveyed highw-water mark would trigger a revised survey of the high-water mark, as follows (modification underlined):

All lots have an 8' rear setback from the property line abutting the Uncompahgre River (Lots: 1, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20). In addition, there is a 10' setback from the high-water mark for these same lots. Whichever setback is greater applies. The high-water mark line shown on this plat map was surveyed on _____, _____. An updated survey of the high-water mark is required with any building permit submittal received at Ridgway Town Hall 2 years past this survey date, or after a significant event that may have altered the location

ATTACHMENT 2

of the previously surveyed high-water mark. HIGH-WATER MARK is defined as follows: The boundary dividing a river bed from a river bank and defined as the line on the bank up to which the presence and action of water are so usual and long-conditioned as to impress on the bed a character distinct from that of the bank with respect to the nature of the ground surface, soil and vegetation.

2. Town Council allow applicant to have 2 years instead of 90 days to complete the conditions of preliminary plat approval;
3. Recreation path along County Road 23 is to be concrete;
4. Accessory Dwelling units are allowed on any lot larger than 9500 sf that is not a multi-family lot.

The final conditions, as recommended from the Planning Commission, are as follows (underlined text represents changes from the staff report dated Feb 23, 2018 for the Planning Commission hearing):

1. Approval of deviation for front yard setback on each lot to be 10' as opposed to the required 15' identified in RMC §7-3-10;
2. Approval of lot frontage deviations to be less than the 50' required by RMC §7-3-10, but not less than 35' as defined on the preliminary plat, as provided for in RMC 7-3-11(D)(1);
3. Approval of increased residential densities pursuant to RMC 7-3-11(D)(2) considering the significant public benefit through the dedication of deed-restricted affordable housing and the off-site public infrastructure improvements through the paving of CR 23 and Chipeta Drive;
4. Approval of deviations to dimensional requirements for roadway width and front setbacks as provided for in RMC 7-3-11(D)(1);
5. Identify a location for the bus stop on the engineering plans in conformance with School District requirements;
6. Specifications and design calculations for the lift station, approved by the Town Engineer;
7. A site application for the lift station approved by the Town Engineer and CDPHE and a final permit issued by CDPHE. This permit should be one of the first components to be completed with this development before re-starting any work as the site may need to be moved if the required mitigation cannot be met;
8. Add 2 streetlights to engineering plans where the south legs of Heron Court and Preserve Drive intersect CR 23;
9. Completion of the recreation path along CR 23 as concrete sidewalk.
10. The south end of Preserve Drive (outside of the town boundary) requires access approval from the County as it is their jurisdiction (certificate on plat map as indicated in this report) as well as an access/utility easement from the property owner (Ridgway River Development LLC). This road section of Preserve Drive from the Town boundary to CR 23 will need to be dedicated to the Town,

ATTACHMENT 2

as well as dedication of the continuation of the recreational path along CR 23 to continue to the south road. Staff recommends securing written approval from both the BOCC and RRD LLC at this time and prior to final plat filing.

11. Related to Completion of requested edits to the General Road and Utility Easement Agreement, inclusive of a dedication of a recreation path easement to continue along CR 23 through Preserve Drive. Staff recommends securing this easement agreement soon, and before Final Plat.
12. Completion of 3-inch asphalt road on Chipeta Drive from Lena Street to County Road 23, then on County Road 23 to the south access on the south loop of the subdivision. Approval needs to be obtained from the County to pave County Road 23 to where the south end of Preserve Drive connects with County Road 23.
13. Sidewalks on Herron and Preserve Streets shall be constructed only on the east side of the street.
14. SMPA Powerline easement resolution and any correction made on plat map: undergrounding of three phase powerline for San Miguel Power Association shall run through the Preserve PUD property heading south. Formal abandonment of that easement will be needed for any reasonable construction envelope on Lot 4.
15. Determination by Town Council, with any recommendation from the Planning Commission, to waive excise taxes on 4 deed-restricted affordable housing units;
16. Accessory Dwelling Units are allowed on lots in the subdivision that are larger than 9500 sq. ft., with update to the affected plat note(s), as follows:

“Each lot is limited to the number of dwelling units, as indicated on this plat map and up to a total of 33 dwelling units, for which applicable excise tax has been paid. In addition each single unit lot larger than 9500 square feet may have an “accessory dwelling unit” if compliant with Town code provisions as in effect from time to time, for which no excise tax has been paid.”
17. Revised topo map showing completed cut and fill work and any updated gravity sewer options for lots along the east side of the development;
18. An updated geotechnical report, supplement to the report, or other documentation from a geologist or a licensed qualified engineer describing current soils conditions as required by RMC 7-4-5(B)(6)(g), and including a letter from Lambert (the author of the original 2006 geotechnical study) indicating drain lines were installed according to plan;
19. Certificate of Ownership and Dedication and other Plat Certificates: revised and/or added as indicated in this report;
20. Plat Notes: revised and /or added as indicated in this report, including but not limited to:
 - a. Updating notes 4 and 5: Geotech Study References and Gravity Sewer
 - b. Addition of a definition for high water mark and a 10’ setback from the high water mark*
 - c. Addition on note regarding completion of improvements and construction within 75’ of the high-water mark and ecological survey exemption
 - d. Driveway access note

ATTACHMENT 2

- e. On street parking
- f. Natural Hazards and Mitigation
- g. Excise tax and number of residential units
- h. Reference to prior easements and including the proposed General Road and Utility Easement Agreement
- i. Note referencing all covenants and associations
- j. Irrigation Easement Note
- k. Shared Driveways Note
- l. Clarification on Slope Easements A, B and C located in unincorporated Ouray County and the ownership and maintenance therefor, and reconciliation of Slope Easement D on pages 1 and 2 of the plat map
- m. Common Elements, duplexes and multi-unit parcels
- n. Others plat note updates/additions referenced in this report

** All lots have an 8' rear setback from the property line abutting the Uncompahgre River (Lots: 1, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20). In addition, there is a 10' setback from the high-water mark for these same lots. Whichever setback is greater applies. The high-water mark line shown on this plat map was surveyed on _____, _____. An updated survey of the high-water mark is required with any building permit submittal received at Ridgway Town Hall 2 years past this survey date, or after a significant event that may have altered the location of the previously surveyed high-water mark. HIGH-WATER MARK is defined as follows: The boundary dividing a river bed from a river bank and defined as the line on the bank up to which the presence and action of water are so usual and long-conditioned as to impress on the bed a character distinct from that of the bank with respect to the nature of the ground surface, soil and vegetation.*

- 21. Letter of completion of work from the Army Corps of Engineers (ACOE) for completion of 404 permit as required by the ACOE, or other ACOE closure of the permit and work;
- 22. Clarification on Lot 19 as a duplex lot instead of "1 unit" shown on the submitted plat map (*this was a condition of approval from the prior approval and will make for 33 units total*);
- 23. Recreation path easement 10' wide along the north boundary of Lot 20 dedicated to the Town of Ridgway;
- 24. Agreement on a number of trees and shrubs as well as species, and memorializing this on the engineering plans;
- 25. Revisions to the Bylaws, CCRs as recommended by the Town Attorney;
- 26. Satisfactory completion of terms and requirements of annexation agreement "Agreement and Declaration of Covenants" recorded at Reception No. 191629 on May 25, 2006, and including but not limited to good-faith negotiations on Dallas Ditch irrigation water rights as described in this Agreement; and

ATTACHMENT 2

27. Estimated costs of construction and financing of infrastructure and utilities, and Developer and Town meet prior to any restart of the work and establish a re-start construction plan, scope of work to be completed and tested, and an inspection schedule;
28. Applicant has 2 years from the date of the Town Council approval of the preliminary plat to complete the conditions of approval for the preliminary plat;
29. Cut and fill calculations submitted to Town Hall; and
30. Work with Town Staff on Affordable Housing notes to propose to Town Council.

AGENDA ITEM #8



January 6, 2022

Ridgway Town Council
Preston Neil

Stryker and Company would like to formally request an approval for the extension of the temporary closure of Laura Street for an additional 6 months.

Since the closure occurred, the use of Laura St. . Though the current use is has seen what we believe to be a minimal impact to the community during our construction but has allowed us to operate safety and more efficiency.

This closure will allow us to get through the winter, build and lift the trusses into place safety without safety concerns to the public, and will keep the road closed through the paving that we will do on Laura. We have re-attached our traffic control plan that was implemented for signage after approval for closure.

Sincerely,

Stryker and Company, Inc.

A handwritten signature in blue ink, appearing to read "Mark Clutts", is written over a light blue horizontal line.

Mark Clutts
Project Manager

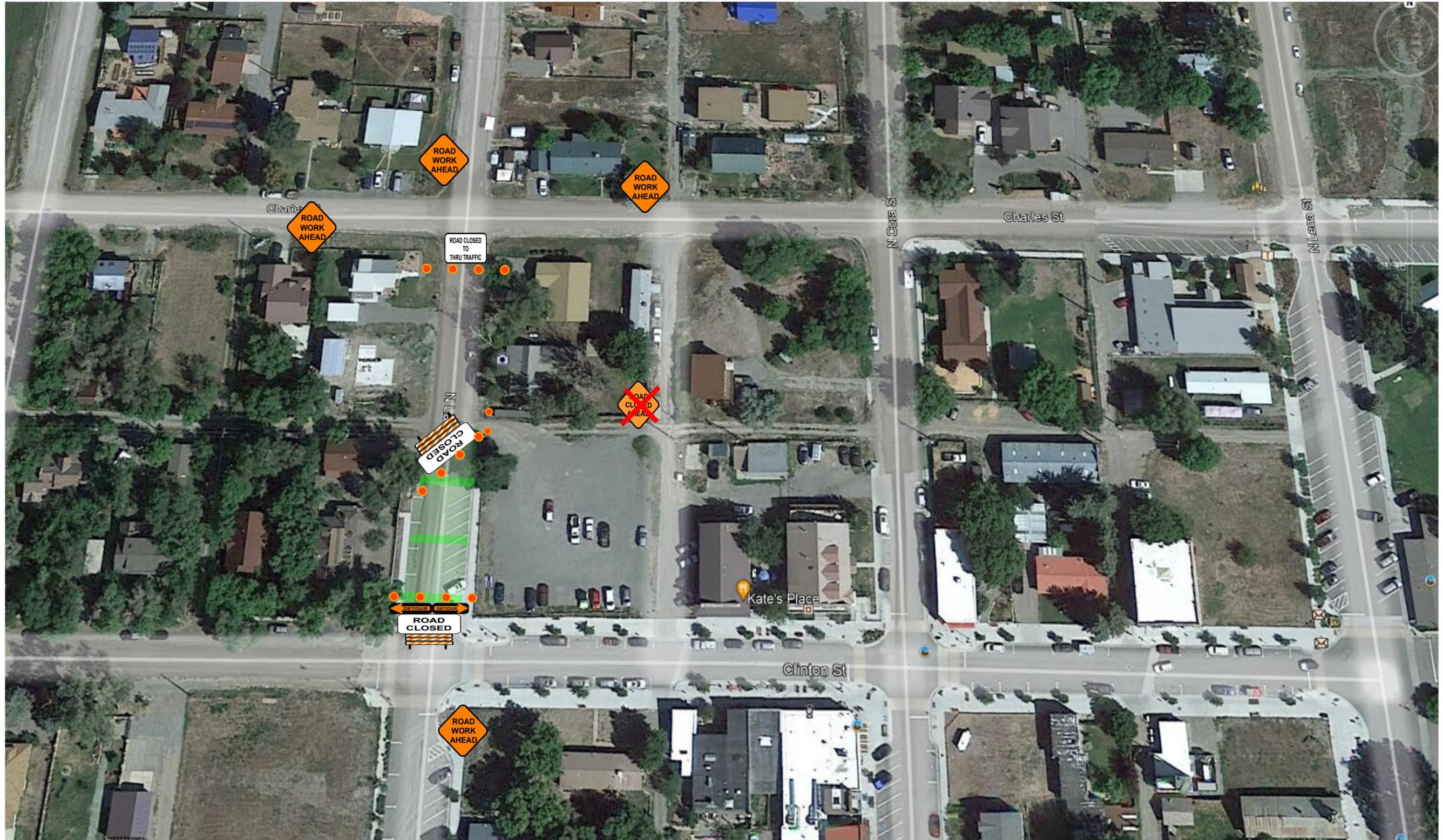
cc: Brian Kail – Superintendent

attachment

Utility Permit # _____
Expiration Date _____

Stryker & Company, Inc.

All work shall be performed in accordance with the 2009 version of the MUTCD www.invarion.com



NOT TO SCALE



Date: 9/5/2021 **Project:** Stryker - Laura Street Closure - Ridgway, CO.

Comments:

- Close Laura Street Between Clinton St and the alley south of Charles st
- Closure to remain throughout Day/night - Reflective signs/cones/barrels to be used.
- No flaggers anticipated

AGENDA ITEM #9



To: Honorable Mayor Clark and Ridgway Town Council
From: Preston Neill, Town Manager
Date: January 4, 2022
Agenda Topic: **Resolution No. 22-01 a Resolution of the Town Council of the Town of Ridgway, Colorado, Amending the Policy Relative to Noxious Weed Management**

BACKGROUND:

In 2003, the Town Council adopted Resolution No. 03-06 (Attachment 1) establishing a policy stating that the Town “shall not use toxic or poisonous, chemical-based herbicides within the Town limits toward the control of noxious weeds, and that the use of non-toxic, organic management practices shall be implemented.” That “No Spray” policy has been followed ever since.

Back in June, Julie Kolb, Ouray County Vegetation Manager, presented information to Council about her department’s weed control practices and the outlook for weeds in Ridgway. She showed various maps that depicted weed infestations in a variety of spots around Town. According to Julie, weeds are traveling in our water channels, and becoming a problem not only for the incorporated areas of Town but also for parts of Ouray County, Ridgway State Park, and homeowners located downstream. An assertion has been made that the time has come to manage the weeds in Ridgway more aggressively.

As a result of the work session, there seemed to be Council consensus to modify the Town’s “No Spray” policy to allow for chemical-based herbicide application when deemed necessary by Town staff and Ouray County Vegetation Management personnel, as long as the application falls in line with the Chemical Application and Protocol Recommendations depicted in the *2011 Town of Ridgway Integrated Weed Management Plan* (Attachment 2). Town staff has drafted Resolution No. 22-01 (Attachment 3) for Council’s consideration that, if adopted, would amend the 2003 weed management policy to allow for flexibility in addressing and controlling various noxious weed species that have been located in Town. More specifically, it would allow for the application of chemical-based herbicides when deemed necessary by Town staff and Ouray County Vegetation Management personnel, as long as the application falls in line with the Chemical Application and Protocol Recommendations found in the *2011 Town of Ridgway Integrated Weed Management Plan*.

PROPOSED MOTION:

“I move to approve Resolution No. 22-01 a Resolution of the Town Council of the Town of Ridgway, Colorado, Amending the Policy Relative to Noxious Weed Management.”

ATTACHMENTS:

- Attachment 1 – Resolution No. 03-06
- Attachment 2 – 2011 Town of Ridgway Integrated Weed Management Plan
- Attachment 3 – Resolution No. 22-01

ATTACHMENT 1

RESOLUTION NO. 03-06

RESOLUTION OF THE TOWN COUNCIL OF RIDGWAY, COLORADO
ESTABLISHING A POLICY RELATIVE TO NOXIOUS WEED MANAGEMENT

WHEREAS, the proliferation of noxious weeds poses a genuine health threat to the Ridgway community; and

WHEREAS, the Town of Ridgway ("Town") has chosen to establish a noxious weed management program to help eradicate and control noxious weeds; and

WHEREAS, the community has expressed its desire to eliminate and contain noxious weeds without the use of toxic and poisonous chemical herbicides, the use of which may itself pose a health threat to the Ridgway community; and

WHEREAS, the Town Council has agreed to this type of management program and has expressed its desire to establish a policy relative to noxious weed management through the use of non-toxic, organic herbicides.

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF RIDGWAY, COLORADO that the Town shall not use toxic or poisonous, chemical-based herbicides within the Town limits toward the control of noxious weeds, and that the use of non-toxic, organic management practices shall be implemented.

PASSED AND APPROVED this 13th of August, 2003.

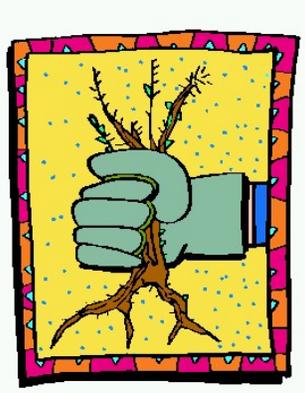
TOWN OF RIDGWAY

Pat Willits, Mayor

ATTEST

Pam Kraft, CMC
Town Clerk

**RIDGWAY COMPREHENSIVE PLAN
INTEGRATED WEED MANAGEMENT
AND NATIVE PLANT RESTORATION**



Town of Ridgway
Final Plan: May 3, 2011

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- VI. LAND MANAGEMENT GOALS AND WEED MANAGEMENT OBJECTIVES**
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 - C. Test Areas
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 - A. Photos of Noxious Weeds within the Town of Ridgway
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 - B. Town of Ridgway Resolution 03-06: Noxious Weed Management
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 - D. Public Meeting Outline and Details
 - E. Meeting Agendas, Objectives and Notes

ATTACHMENT 2

I. INTRODUCTION

An enormous thank you is extended to the Committee and Meeting Facilitator for the extensive time, effort and energy put forth in developing this Integrated Plan. The Committee includes the following Community Members, Town Councilors, and Town Staff:

Heather Bussey	John Clark	Ellen Hunter	Joanne Fagan
Jean McDonnell	Sheelagh Williams	Pam Kraft	Dickson Pratt

Meeting facilitation: Don Batchelder

This Integrated Plan could not be the well-rounded and inclusive document that it is without the persistent and extensive inputs received from our dedicated community members at large who deserve a sincere thank you for their continued and undying participation in pulling this plan together.

Thank you to our knowledgeable guest speakers: Susan Rose, Kelley Liston, Jude Sirota, and Tim Seastadt for providing basic and advanced technical information on noxious weeds, integrated weed management and plan development, and land stewardship, and who provided us with the knowledge required to address this complicated issue.

Finally, we would like to express sincere gratitude for the extensive local coverage in the Ridgway Sun for each of the lengthy and informative meetings.

This document is organized into 11 sections:

- I. Introduction
- II. Background Information
- III. Definitions
- IV. Scope, Purpose and Guiding Principles
- V. Existing Conditions
- VI. Land Management Goals and Weed Management Objectives
- VII. Priorities
- VIII. Recommendations
- IX. Conclusions
- X. Attachments
- XI. Exhibits

ATTACHMENT 2

II. BACKGROUND INFORMATION

While the Town of Ridgway has addressed weed management through various mechanisms for years, pursuant to state regulations (Colorado Revised Statutes Title 35, Article 5.5), there is now a requirement to develop an integrated management plan that comports with the needs and desires of the community, while effectively managing weeds within our budgetary limits.

The Weed Management Plan for the Town of Ridgway is reflected in Chapter 12 Section 1 (Exhibit A) of the Ridgway Municipal Code. This plan calls for maintaining stubble “no higher than 6 inches above the ground”, and non-compliance is managed through nuisance procedures. On August 13, 2003 the Town Council adopted Resolution 03-06 (Exhibit B), which states “the Town shall not use toxic or poisonous, chemical-based herbicides within the Town limits toward the control of noxious weeds, and that the use of non-toxic, organic management practices shall be implemented”. Since that time, the Town has managed noxious weeds on publicly-owned properties through mechanical efforts including mowing, weed whacking, and hand pulling, and with targeted chemical applications of a vinegar-based solution. Private property owners are allowed to manage weeds on their property by whatever mechanism, chemical or other method they prefer.

During the March 17, 2010 Town Council workshop the Ouray County Weed Manager approached the Town Council with concern over a growing and significant noxious weed population within the Town limits that needed management. Of particular concern was the spotted knapweed, a State of Colorado B-list noxious species that was propagating along the river corridor and primarily in Rollans Park, public property under the Town’s stewardship. In addition to the spotted knapweed along the corridor, the Weed Manager indicated there were a number of other noxious weeds of concern that were not being managed. The Council reviewed the option of using Milestone, a chemical treatment that would be spot sprayed in targeted locations within the Town. During the April 14, 2010 Town Council meeting, the Council considered a resolution for a temporary exemption to Town policy regarding the use of chemicals for noxious weed management. In response to citizen concerns and an organized volunteer pulling effort, the Council agreed to monitor volunteer mechanical efforts for weed management. Volunteer and mechanical efforts continued through 2010 with no applications of Milestone on public properties within the Town.

In August 2010, the Town entered into an Intergovernmental Agreement with Ouray County, which included an agreement to develop an Integrated Weed Management Plan (Exhibit C) for the Town of Ridgway. In December 2010, using the State of Colorado’s “Creating An Integrated Weed Management Plan: A Handbook for Owners and Managers of Lands with Natural Values”¹ as a guide, a committee was formed and the plan development commenced. All

¹ Colorado Natural Areas Program, Colorado State Parks, Colorado Department of Natural Resources, Colorado Department of Agriculture Division of Plant Industry, and the Colorado Department of Agriculture. Creating an Integrated Weed Management Plan: A Handbook for Owners and Managers of Lands with Natural Values, Caring for the Land Series Volume IV. March 2000.

ATTACHMENT 2

committee and public meetings were noticed and advertised, including distribution of meeting fliers, email distribution, website information and verbal outreach. The Town's website maintained a repository of meeting dates, events, scheduling, and weed management resource information at <http://www.town.ridgway.co.us/weedcommittee.html>.

ATTACHMENT 2

III. DEFINITIONS

"Integrated management" - the planning and implementation of a coordinated program utilizing a variety of methods for managing noxious weeds, the purpose of which is to achieve specified management objectives and promote desirable plant communities. Such methods may include but are not limited to education, preventive measures, good stewardship, and the following techniques:

- (a) "Biological management", which means the use of an organism to disrupt the growth of noxious weeds.
- (b) "Chemical management", which means the use of herbicides or plant growth regulators to disrupt the growth of noxious weeds, and includes vinegar-based and alternative solutions.
- (c) "Cultural management", which means methodologies or management practices that favor the growth of desirable plants over noxious weeds, including maintaining an optimum fertility and plant moisture status in an area, planting at optimum density and spatial arrangement in an area, and planting species most suited to an area.
- (d) "Mechanical management", which means methodologies or management practices that physically disrupt plant growth, including tilling, mowing, burning, flooding, mulching, hand-pulling, hoeing, and grazing.

Source: CRS 35-5.5-103 (9)

"Management" - any activity that prevents a plant from establishing, reproducing, or dispersing itself.

Source CRS 35-5.5-103

(11.6)

"Native plant" - a plant species that is indigenous to the state of Colorado.

Source CRS 35-5.5-103 (15)

"Noxious weed" - an alien plant or parts of an alien plant that have been designated by rule as being noxious or has been declared a noxious weed by a local advisory board, and meets one or more of the following criteria:

- (a) Aggressively invades or is detrimental to economic crops or native plant communities;
- (b) Is poisonous to livestock
- (c) Is a carrier of detrimental insects, diseases, or parasites;
- (d) The direct or indirect effect of the presence of this plant is detrimental to the environmentally sound management of natural or agricultural ecosystems.

Source CRS 35-5.5-103 (16)

IV. SCOPE, PURPOSE AND GUIDING PRINCIPLES

SCOPE

The scope of this noxious weed management plan focuses primarily on noxious weed management for public properties within the Town of Ridgway, as well as the properties in Ouray County owned by the Town, which include the water treatment facility and Lake Otonowanda Reservoir, south of Town. The plan also addresses the need for noxious weed management on private properties within the Town of Ridgway.

PURPOSE and GUIDING PRINCIPLES

This is a multi-purpose plan, grounded with the following:

- Create a scientifically based protocol for weed management that considers, reconciles, and integrates the community's desires, and the Town's available resources for the effective management of prioritized noxious weeds through the utilization of priority management, a variety of control methodologies, appropriate revegetation, and monitoring;
- Effectively manage or control of the Town of Ridgway's prioritized noxious weeds of concern;
- Effectively safeguard Town-owned property and facilities including parks, trails, open spaces, recreational facilities, and rights of ways in the safest manner possible;
- Manage noxious weeds with least impact on human health, wildlife, wetlands, gardens, riparian and ditch corridors, and individual ecosystems;
- Provide education for the general population and other governmental entities in noxious weed identification and management;
- Pursue Town and external resources for noxious weed management goals and objectives;
- Be a good neighbor;
- Improve and maintain natural habitat, including native plant and wildlife populations.

The meeting schedule and plan outline is appended as Exhibit D.

ATTACHMENT 2

V. EXISTING CONDITIONS

During the December 21, 2010 public meeting the following existing conditions for weed species, locations, and population size/density were identified. These data are based upon findings and mapping efforts completed during the 2010 growing and weed management season. It is recommended that the weed inventory be updated each year beginning July 1st. While the inventory presented here is believed to be reasonably accurate and sufficient to use as a baseline for this integrated management plan, it was developed largely from memory by members of the committee, and should be updated in July 2011. Accurate records will provide monitoring data from year to year. The locations and populations represented on the map are general to the properties upon which they are identified, and not necessarily specific to the exact coordinate for which they sit on the map (ie: they were not located via GPS). For these reasons, the 10% weed reduction objective will be difficult to measure in 2011.

Population size and density are categorized as follows:

- #1 = <100 square feet
- #2 = 100-500 square feet
- #3 = >500 square feet

Location	Noxious Weed	State Rank	Size/Density	Public/Private
River Park PUD - Residential				
	Canada Thistle	B	3	Private
	Spotted Knapweed	B	1	Private
	Russian Knapweed	B	3	Private
	Canada Thistle	B	3	Public ROW
River Park PUD - Industrial Park				
	Spotted Knapweed	B	2	Public/Private
	Musk Thistle	B	1	Public/Private
Green Street Park				
	Canada Thistle	B	1	Public
	Russian Knapweed	B	3	Public
Parkside PUD				
	Russian Knapweed	B	2	Public
	Canada Thistle	B	3	Public
Uncompaghre River Trail				
	Spotted Knapweed	B	1	Public
	Russian Knapweed	B	1	Public
	Canada Thistle	B	1	Public
	Musk Thistle	B	1	Public
	Common Mullein	C	1	Public
	Hounds Tongue	B	2	Public
Wastewater Treatment Plant				
	Canada Thistle	B	3	Public
	Russian Knapweed	B	3	Public

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	Spotted Knapweed	B	3	Public
	Sow Thistle	B	3	Public
	Burdock	C	3	Public
Water Treatment Plant				
	Canada Thistle	B	2	Public
Lake Otonowanda				
	Canada Thistle	B	3++	Public
	Burdock	C	3	Public
BMX Track				
	Spotted Knapweed	B	1	Public/Private
	Canada Thistle	B	3	Public
Rollans Park (Uncompahgre River Corridor)				
	Common Mullein	C	3	Public
	Oxeye Daisy	B	1	Public
	Canada Thistle	B	2	Public
	Spotted Knapweed	B	3	Public
	Chinese Clematis	B	1	Public
	Sow Thistle	B	1	Public
Ridgway Land Co Open Space				
	Spotted Knapweed	B	3	Private
	Russian Knapweed	B	2	Private
	Canada Thistle	B	3	Private
Moffat / Lena				
	Spotted Knapweed	B	3	Public/Private
Hwy 62/ South Railroad and South Liddell Stanton				
	Leafy Spurge	B	1	Private
Triangle Subdivision				
	Common Mullein	C	3	Private
Cottonwood Park				
	Canada Thistle	B	1	Public
	Common Burdock	C	1	Public
Amelia Street/ School Road				
	Spotted Knapweed	B	1	Public/Private
Marie Scott Subdivision/ Amelia Street				
	Russian Knapweed	B	1	Public/Private
	Hoary Cress	B	3	Public/Private
CR 5 (in Town)				
	Hoary Cress	B	3	Public/Private
Solar Ranches - Open Space (Outlot B)				
	Canada Thistle	B	2	Private
	Leafy Spurge	B	1	Private
	Oxeye Daisy	B	2	Private
	Dames Rocket	B	2	Private
	Spotted Knapweed	B	3	Private
Regional Athletic Park (Solar Ranches Outlot A)				
	Dames Rocket	B	1	Public

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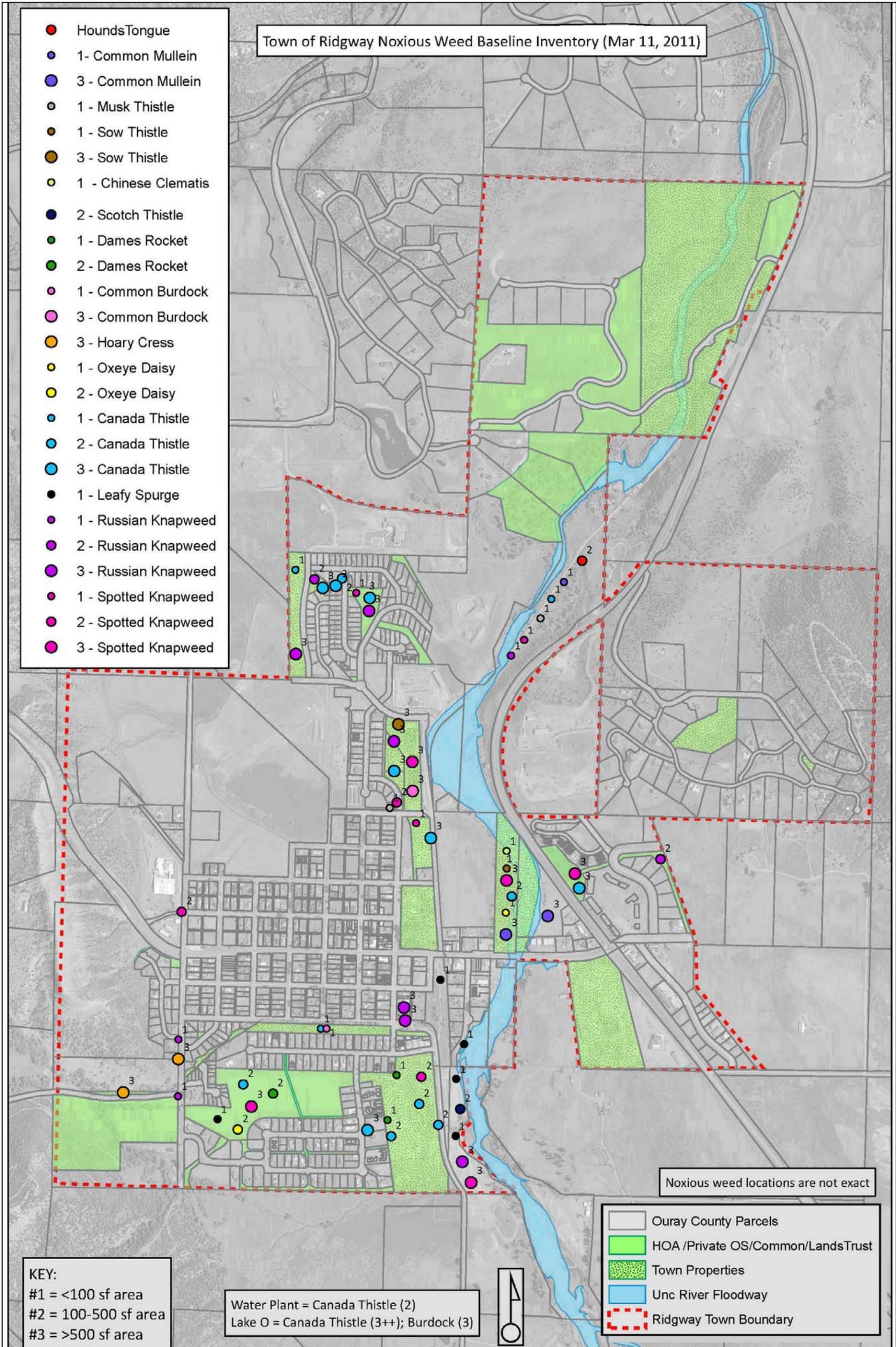
	Canada Thistle	B	2	Public
	Spotted Knapweed	B	2	Public
The Preserve				
	Leafy Spurge	B	1	Private
	Spotted Knapweed	B	3	Private
	Scotch Thistle	B	2	Private
	Russian Knapweed	B	3	Private
Solar Ranches – Private Lots				
	Canada Thistle	B	3	Private

The following natural resources were defined during the December 21, 2010 public meeting:

River corridor, wetlands, parks, wildlife habitat (bald eagles), drinking water (Lake Otonowanda and the water treatment facility), irrigation ditches, streams and creeks, landscape plantings with native and desired species, and natural willows.

While the Town policy states that property owners adjoining public rights of way are responsible for maintenance and management of that right-of-way, there needs to be collaborative efforts with weed management between public and private property owners.

Baseline Noxious Weed Types and General Locations (from memory) for the 2010 season



VI. LAND MANAGEMENT GOAL AND WEED MANAGEMENT OBJECTIVES

GOAL

Reduce or eliminate priority noxious weeds, depending on species and size of infestation, on the Town of Ridgway public property.

Objectives:

- I. Educate the public and Owners Associations on the impacts of, identification of, and methods of control of noxious weed species.
- II. Use the least toxic method that is feasible and effective, to reduce or eliminate weeds.
- III. Eradicate small infestation of priority noxious weeds before they spread and become large infestations.
- IV. Control large infestations of priority noxious weeds by preventing them from going to seed or vegetative spreading.
- V. Control identified large infestations of priority noxious weeds by reducing their numbers with a target goal of 10% reduction or more per year.
- VI. Prevent new infestations of noxious weeds by restricting movement of weed contaminated soil.
- VII. Prevent new infestations of noxious weeds by reducing soil disturbance of intact native plant communities and/or reseeding with non-invasive species, preferably native plants.
- VIII. Town Staff should annually update this plan to identify and locate the various noxious weed types within the Town, and to prioritize weed management for the season.

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VII. PRIORITIES

CRITERIA FOR DETERMINING WEED MANAGEMENT PRIORITIES

1. Utilize annual mapping data that identifies noxious weed types, locations, population size, and other critical data.
2. Prioritize small infestations of targeted noxious weed populations.
3. Identify and prioritize critical locations for management.
4. Identify and prioritize noxious weed species with the greatest impact such as toxicity, most invasive, difficulty of control/containment.
5. Coordinate annually with County Weed Manager as priorities for noxious weed management change and evolve.
6. Determine financial costs and required resources, based on specific noxious weed species, locations, and methods of control.

	Spotted Knapweed	Canada Thistle	Russian Knapweed	Leafy Spurge	Hoary Cress	Hounds Tongue	Scotch Thistle	Any new found B weed
Uncompahgre River	1.4	2.3						1.0
Lake Otonowanda		2.1						1.0
Uncompahgre Riverway Trail	2.1	2.4	2.3	1.3	3.3	2.7		1.2
Riparian areas, ditches	2.3	2.6	2.4	1.5	3.4	3.1		1.3
Small patches of any B weed	1.1	1.1	1.1	1.1	1.4	1.5	1.3	1.1
Athletic Park esp'lly S ditch	2.1	2.4	2.5			2.4		1.0
Road rights of way	2.6	2.9	2.8	1.6	3.6	3.3		1.6
Trails	2.1	2.6	2.7	1.6	3.6	3.3		1.5

	1.0 - 1.5 (Highest Priority)
	1.6 - 1.9
	2.0 - 2.5
	2.6 - 2.9
	3.0 - 3.5
	3.6 - 4.0 (Lowest Priority)

 = weed not known to be in that area
 Lowest number = Highest Priority

VIII. RECOMMENDATIONS

A. IMPLEMENTATION MEASURES

Education and Outreach

- 1) Educate the public, including Owners Associations, about: the Town's weed management regulations, this integrated weed management plan, financial costs to the Town for weed management, and the Colorado Revised Statutes Title 35 Article 5.5 addressing weed management.
- 2) Public outreach efforts may include: collaboration with the Ouray County Weed Manager on special events such as Pulling for Colorado and the noxious weed symposium, posting information on the Town's website, incorporating information into building permit and land use applications (e.g.: subdivisions). General information on noxious weeds may include: weed identification and methods of control, the potential negative impacts of soil and vegetation disturbance, and sources for weed-free seed mixes.
- 3) Explore opportunities for organized, informed, and easy volunteer actions and education for weed control.
- 4) Work with schools to promote educational programs by exploring natural resource-based programs and hands-on learning.
- 5) Contact and collaborate with neighboring property owners to control noxious weeds, and provide opportunities for participation in weed management on public lands.
- 6) Encourage the public to contact town staff when noxious weeds are identified within the Town through education and public outreach efforts, including signage at trailheads, and other methods of posting information about noxious weeds.

Prevention and Monitoring

- 1) Implement noxious weed management throughout the Town through enforcement and/or implementation of land development and code enforcement regulations, including minimizing disturbance of areas within proposed developments and during construction, and working to prohibit redistribution of noxious weed infested soils and chemically treated soils, and mandatory re-vegetation of disturbed areas on public and private properties.
- 2) Minimize surface disturbance of Town-owned property to limit the need for re-vegetation, create specific revegetation plans and budget funds for re-vegetation during projects.
- 3) Utilize the varied techniques as indicated in this plan for effective management, and adapt to changing conditions annually.
- 4) Prepare and implement site specific plans for weed management at prioritized locations annually.
- 5) Identify populations as quickly as possible through annual mapping of noxious weed locations, densities, and populations to identify and target specified, small, noxious weed population that can be readily eradicated.
- 6) Annual evaluation of specific management plans and techniques and efficacy thereof, through continuous mapping of noxious weed locations, densities, and populations.

ATTACHMENT 2

- 7) Identify, assess and prioritize effective management tools from this integrated plan, including creation and management of healthy soils and environments not conducive to noxious weed growth.
- 8) Work from “the outside in” when controlling weeds, i.e.: manage the perimeter.

Least Toxic Methods

- 1) Encourage and collaborate with volunteers to effectuate weed management.
- 2) Target and manage weed infestations early when first identified, and they are less costly and least difficult to control.
- 3) Pursue grant and outside funding opportunities for noxious weed management commensurate with management goals, objectives, and priorities.
- 4) Use biological methods as much as possible in riparian areas to complement other management techniques.
- 5) Favor native plant populations and establish goals using trend-line analysis (*i.e.: plotting data from year to year and drawing a line from point to point in order to visually establish positive and negative trends*); *Are populations growing (positive line), diminishing (negative line), or staying the same (flat line)?*
- 6) Encourage and nurture habitats for native species.
- 7) Develop a chemical application protocol as a guideline for utilizing chemical management methods.
- 8) Work to control weeds in a manner that least impacts neighboring properties.
- 9) Explore and utilize effective alternatives to chemical treatments, including identification and maximization of areas in town that can be effectively managed without toxic chemicals, and using chemical applications as a last resort to the extent allowed with available resources.

B. TECHNIQUES/ METHODS FOR MANAGING PRIORITIZED NOXIOUS WEEDS

Targeted weeds, locations, and management techniques are in priority order:

1.) Any new found “B” list, noxious weed

Past Management Methods

Pulling, mowing, weed whacking by Town Staff; Vinegar based chemical applications.

Management Goal: Eradication

Proposed Management Techniques:

Mechanical is the preferred method for all new “B” list noxious weeds when practical. The goal is to eradicate the small populations while they are isolated and possible to effectively manage, so as to minimize requiring future resources and to minimize any future management issues. These newfound “B” list weed populations are the highest priority for the Town of Ridgway. Perennials and non-perennials require varied management techniques, as follows:

Perennials

(Canada Thistle, Hounds tongue, Hoary Cress, Dames Rocket, Leafy Spurge, Oxeye Daisy, Spotted Knapweed, Russian Knapweed)

Biological control: Not practical due to limited population size.

Cultural control: Minimize disturbance, re-vegetate with native perennial grasses, followed by native forbs, if desired, and maintain until established. If desirable grass competition is evident, judicious herbicide application that does not injure grasses may release them to compete effectively with the weeds. Irrigation may help stimulate grass competition in these cases. Seeding suitable perennial grasses is necessary to prevent weed re-invasion.

Mechanical control: Pulling, mowing, weed-whacking with goal of preventing the weeds from seeding.

Chemical control: Contact the Ouray County Weed Manager or a licensed applicator for specific recommendations. Refer to Attachment C for recommendations including preferred active ingredient, and the Chemical Application Protocol.

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Non-perennials/ Biennials

(Musk Thistle, Scotch Thistle)

- Cultural: Minimize disturbance, re-vegetate with native perennial grasses, followed by native forbs, if desired, and maintain until established. Prevent from seeding, and suppress growth with healthy soils, native perennial grasses, and rapid re-vegetation.
- Biological control: Not practical due to limited population size.
- Mechanical: Prioritize all mechanical treatments: pulling, mowing, weed-whacking, etc.
- Chemical: Not necessary and not desired.

2.) Leafy Spurge on the Town-Owned areas of the Uncompahgre River Trail

Past Management Methods

Pulling, mowing, weed whacking by Town Staff; Vinegar based chemical applications

- Description: A perennial up to three feet tall that reproduces by vigorous root stalks and seed.
- Comments: Leafy spurge is primarily found along the ditches in Solar Ranches and near the intersection of Hyde and Railroad.
- Management Goal:** **Eradication** - *although it is estimated this weed in this location may already be eradicated, it should be checked in season for management need.*

Proposed Management Techniques:

- Biological control: Population is too small for biological controls.
- Cultural control: Minimize disturbance, re-vegetate with native perennial grasses, followed by native forbs, if desired, and maintain until established. Any activity that encourages vigorous grass growth is very important.
- Mechanical control: Mowing leafy spurge at 14 to 21 day intervals may cause higher susceptibility to fall applied herbicides.
- Chemical control: Spot spray small populations with signage and enclosure sufficient to keep out animals and pets, with such enclosure

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present for 2 weeks. Contact Ouray County Weed Manager or a licensed applicator for specific recommendations. Refer to Attachment C for recommendations including preferred active ingredient, and the Chemical Application Protocol.

3.) Spotted Knapweed on Uncompahgre River Corridor (Rollans Park)

Past Management Methods

3 "Pulling for Colorado" events; 2 years of Youth Corps pulling; 2 years of Community Corps pulling; Volunteer pulling efforts in 2010.

Description: A short-lived, non-creeping perennial that reproduces from seed and forms a new shoot each year from a taproot.

Comments: One of the most invasive, aggressive weeds to plague the western United States. Significant infestations are located along the river and elsewhere in town.

Management Goal: Control

Proposed Management Techniques:

Biological control: Use of goats is not recommended in this location due to the desire to retain native vegetation, moist soils with parasite concerns, steep rocky slopes, and resulting soil disturbance; Due to the limited size of the weed infestation, there are concerns about the insect biological agent population's ability to overwinter and the sufficiency of the existing weed population to sustain the insects; The seed-head flies, *Urophora affinis* and *Urophora quadrifasciata*, have been released in many Front Range counties. These insects cause plants to produce fewer viable seeds and abort terminal or lateral flowers. Root feeding insects may have more of a detrimental effect on knapweed populations than seed feeding insects. Larvae of the yellow winged knapweed moth feed in the roots of both knapweed species.

Cultural control: Minimize disturbance, re-vegetate with native perennial grasses, followed by native forbs, including willows, if desired, and maintain until established. If desirable grass competition is evident in spotted knapweed stands, judicious herbicide application that does not injure grasses may allow them to compete effectively with the weeds. Irrigation may help

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stimulate grass competition in these cases. Seeding suitable perennial grasses is necessary to prevent weed re-invasion.

Mechanical control: Frequent and consistent pulling (most effective), mowing, weed-whacking with goal of preventing the weeds from seeding.

Chemical control: Contact the Ouray County Weed Manager or a licensed applicator for specific recommendations. Refer to Attachment C for recommendations including preferred active ingredient, and the Chemical Application Protocol. In order to minimize chemical applications and maximize effectiveness, only the rosettes should be spot sprayed in the spring, and bolted plants should be pulled repeatedly. If consistently applied for 3-4 years, the spotted knapweed should begin to decline as the seed bank is exhausted.

4.) Leafy Spurge in Riparian Areas and Ditches

Management Goal: Eradication

Past Management Methods and Proposed Management Techniques:

Refer to Priority #2 – Leafy Spurge on the Uncompahgre River Trail.

5.) Leafy Spurge along Trails

Management Goal: Eradication

Past Management Methods and Proposed Management Techniques:

Refer to Priority #2 – Leafy Spurge on the Uncompahgre River Trail.

6.) Leafy Spurge along Road Rights-of-Way

Management Goal: Eradication

Past Management Methods and Proposed Management Techniques:

Refer to Priority #2 – Leafy Spurge on the Uncompahgre River Trail.

7.) Canada Thistle at Lake Otonowanda

Past Management Methods

Pulling, mowing, weed whacking by Town Staff; Vinegar based chemical applications

ATTACHMENT 2

Description: Perennial. Reproduces from vegetative buds in root system and from seed.

Comments: Canada thistle is best managed through an integrated management system that emphasizes competitive, desirable plants. Population at the Lake is dense.

Management Goal: Control

Proposed Management Techniques:

Biological control: Bugs are not a preferred option due to potential to damage native thistle populations in addition to the noxious weed population. Prioritize goats as a biological control.

Cultural control: Minimize disturbance, re-vegetate with native perennial grasses, followed by native forbs, if desired, and maintain until established.

Mechanical control: Research indicates that mowing of Canada thistle may be effective when done repeatedly at two week intervals over a period of several years. Pulling and digging up Canada thistle is ineffective as the plant has such an extensive root system. Weeds may also be weed-whacked.

Chemical control: Contact the Ouray County Weed Manager or a licensed applicator for specific recommendations. Refer to Attachment C for recommendations including preferred active ingredient, and the Chemical Application Protocol. Due to non-public access, signage should be placed on the gate accessing the reservoir property. Any chemical application should observe a 30 foot setback from the water surface of the lake.

8.) Spotted Knapweed along Town-Owned areas of the Uncompahgre River Trail

Management Goal: Control

Past Management Methods and Proposed Management Techniques:

Refer to Priority #3 – Spotted Knapweed on the Uncompahgre River Corridor.

9.) Spotted Knapweed in the Athletic Field

Management Goal: Control

Past Management Methods and Proposed Management Techniques:

Refer to Priority #3 – Spotted Knapweed on the Uncompahgre River Corridor, with the exception that goats may be an effective management technique in this location. This location has potential for volunteer, mechanical weed management efforts, which should be coordinated through a centralized volunteer management program.

10.) Spotted Knapweed along Trails

Management Goal: Control

Past Management Methods and Proposed Management Techniques:

Refer to Priority #3 – Spotted Knapweed on the Uncompahgre River Corridor.

11.) Spotted Knapweed in Riparian Areas and Ditches

Management Goal: Control

Past Management Methods and Proposed Management Techniques:

Refer to Priority #3 – Spotted Knapweed on the Uncompahgre River Corridor.

12.) Russian Knapweed along Town-Owned areas of the Uncompahgre River Trail

Past Management Methods

Pulling, mowing, weed whacking by Town Staff; Vinegar based chemical applications

Description: A perennial with an extensive underground root system.

Comments: Like other creeping perennials, the key to Russian knapweed control is to stress the weed and cause it to expend nutrient stores in its root system. An integrated management plan should be developed that places continual stress on the weed. Currently, the best management plan includes cultural control combined with mechanical and/or chemical control techniques. A single control strategy, such as mowing or an herbicide, usually is not sufficient. Russian knapweed releases toxins into the soil, which prohibit the growth of native plants. ***The plant is toxic to horses, however they must consume it over a period of time before poisoning will occur. Once poisoning occurs horses are unable to chew and advance food to the back of their***

ATTACHMENT 2

mouths, swallowing is impaired and horses can drink only if they immerse their head in water far enough to get water to the back of their mouths. Poisoning is irreversible and death by starvation will occur.

Management Goal: Control

Proposed Management Techniques:

Biological control: None currently available.

Cultural control: Minimize disturbance, re-vegetate with native perennial grasses, followed by native forbs, if desired, and maintain until established. Russian knapweed tends to form monocultures by eliminating other plants. Therefore, sowing desirable plant species is necessary after the weed is controlled. Research indicates that the native grasses, streambank wheatgrass and thickspike wheatgrass will establish in an area after Russian knapweed is suppressed with herbicides. If the Russian knapweed stand is not too old and grasses are still present, stimulating grass growth by irrigation (where possible) should increase grass competition with knapweed and keep it under continual stress.

Mechanical controls: Repeated mowing combined with herbicide applications will gradually stress the plant, and this is the recommended approach in this location.

Chemical control: Contact the Ouray County Weed Manager or a licensed applicator for specific recommendations. Refer to Attachment C for recommendations including preferred active ingredient, and the Chemical Application Protocol. Spot spray small populations.

13.) Canada Thistle along Town-Owned areas of the Uncompahgre River Trail

Management Goal: Control

Past Management Methods and Proposed Management Techniques:

Refer to Priority #7 – Canada Thistle at Lake Otonowanda, minus the 30' setback from the lake and signage on the gate, and minus the biological insect controls as the population is insufficient to sustain an insect population.

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14.) Canada Thistle in the Athletic Field

Management Goal: Control

Past Management Methods and Proposed Management Techniques:

Refer to Priority #13 – Canada Thistle along the Uncompahgre River Trail, minus the biological insect controls as the population is insufficient to sustain an insect population. A dedicated, local citizen has offered resources for volunteer mechanical management services in this location, which should be coordinated through a centralized volunteer management program.

15.) Russian Knapweed in Riparian Areas and Ditches

Management Goal: Control

Past Management Methods and Proposed Management Techniques:

Refer to Priority #12 – Russian Knapweed along the Uncompahgre River Trail

	Priority Noxious Weed Type and Location	Cultural	Biological	Mechanical	Chemical
1	Any new found "B" list, noxious weed	X		X	X
2	Leafy Spurge on the Uncompahgre River Trail	X		X	X
3	Spotted Knapweed on Uncompahgre River Corridor	X	X	X	X
4	Leafy Spurge in Riparian Areas and Ditches	X		X	X
5	Leafy Spurge along Trails	X		X	X
6	Leafy Spurge on Road Rights of Way	X		X	X
7	Canada Thistle – Lake Otonowanda	X	X	X	X
8	Spotted Knapweed along Uncompahgre River Trail	X	X	X	X
9	Spotted Knapweed in the Athletic Field	X	X	X	X
10	Spotted Knapweed along Trails	X	X	X	X
11	Spotted Knapweed in Riparian Areas and Ditches	X	X	X	X
12	Russian Knapweed along Uncompahgre River Trail	X		X	X
13	Canada Thistle along Uncompahgre River Trail	X	X	X	X
14	Canada Thistle in the Athletic Field	X	X	X	X
15	Russian Knapweed in Riparian Areas and Ditches	X		X	X

C. TEST AREAS

Green Street Park

Green Street Park is recommended as a potential test site for volunteer management of noxious weeds. This will be a collaborative effort of dedicated community members under the supervision and direction of Town Staff. A detailed action plan should be developed with the community volunteer group and should include: weed inventory and mapping (type, size, location, etc.), proposed management efforts, detailed documentation of completed efforts, and constant monitoring of the test area with annual reporting to Town Staff.

Mycorrhizal Test Area

A mycorrhizal test area should also be incorporated with this plan in order to ascertain the viability of this product in assisting in effective weed management. Effective monitoring will be required and necessary to evaluate the efficacy of this product.

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IX. CONCLUSIONS

Integrated weed management for a small municipality requires a technical and coordinated approach considering a variety of sometimes competing needs and desires, including identification of shared community values and priorities, evaluating noxious weed science, incorporating weed management experiences, and understanding human and animal sensitivities to weeds and various chemical treatments. Creating this plan was incredibly difficult and at times required reconciliation of seemingly incompatible objectives and demands. The discussions and conclusions developed through an organized series of public meetings where information was gathered, shared, solicited, and eventually crafted into a community guidance document. Extensive outreach efforts were put forth in both real and virtual space to insure the needed inputs were gathered, and educational opportunities were offered to encourage community involvement.

In the end, this plan puts forth a list of 4 priority noxious weeds found in 15 prioritized weed management locations on public properties within the Town, and including Town property outside of the municipal boundary (Lake O). In addition, the plan identifies specific management techniques for each of the various priority weed types and specific locations. Based on community inputs throughout the plan development process, a Chemical Treatment Protocol is recommended (Attachment C), and specific active ingredients for the chemical treatments are identified as a management technique to be incorporated for effective management of the priority noxious weeds. When the biological, cultural, and mechanical management techniques have not or will not be effective, and /or staffing and financial resources are insufficient or unavailable, in managing the noxious weed, in order to preserve the desired natural resources impacted by the weeds, chemical methods will need to be utilized for effective management (eg: Russian Knapweed). The Chemical Treatment Protocol was developed through community inputs for this purpose. When biological, cultural, and mechanical methods will effectively manage the weed population, those methods have been prioritized.

As remains true for small, local government operations, the need to balance very dynamic human and financial resources will need to be taken into consideration with any management plan. This plan is drafted to provide the appropriate technical and financial information to assist with these determinations, and of course will develop and change over time with variable resources and changing priorities.

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X. ATTACHMENTS

ATTACHMENT A: Photos of Noxious Weeds within the Town of Ridgway

Oxeye Daisy



Musk Thistle



Scotch Thistle



Common Burdock



Dame's Rocket



Hoary Cress



Houndstongue



Leafy Spurge



Spotted Knapweed



Canada Thistle



Russian Knapweed



Spotted Knapweed



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Canada Thistle Rosette



Leafy Spurge Rosette



Musk Thistle Rosette



Burdock Rosette



Spotted Knapweed Rosette



Oxeye Daisy Rosette



Absinthe Wormwood Rosette

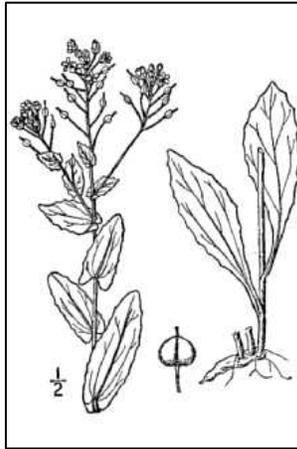
ATTACHMENT 2

ATTACHMENT B: Line Drawings of Noxious Weeds within the Town of Ridgway

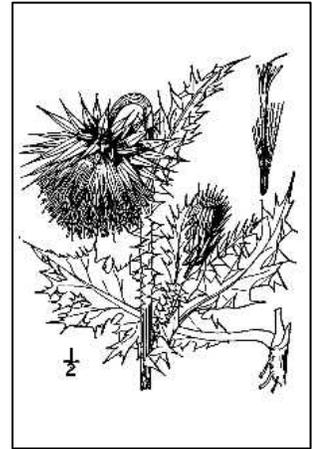
Canada Thistle



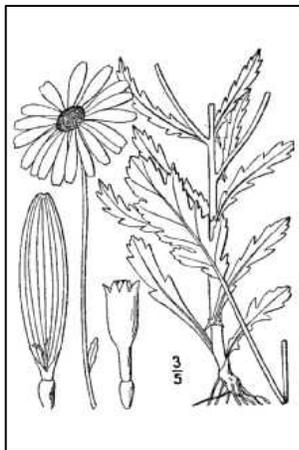
White Top



Musk Thistle



Oxeye Daisy



Scotch Thistle



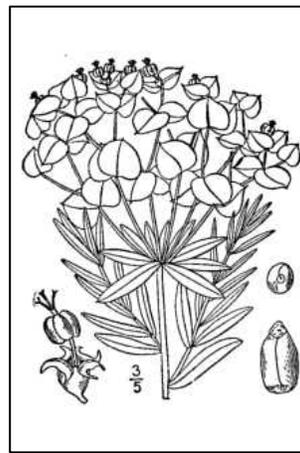
Spotted Knapweed



Common Burdock



Leafy Spurge



Dames Rocket



ATTACHMENT 2

ATTACHMENT C: Chemical Application Protocol and Recommendations

- Contact adjoining property owners prior to chemical applications, a minimum of 48 hours prior to possible time of application.
- Posting of chemical treatment usage on public properties within the Town, for a 2 week period following treatment.
- Posting and notification of chemical treatment usage to adjoining private properties within the Town, for a 2 week period following treatment.
- Selection and use of available least toxic, effective chemical treatments are recommended and desired.
- Make available sources of information on the impacts of chemical applications.
- Maintain a list of registered chemically sensitive persons within the town limits for notification purposes and encourage private property owners to post property when spraying chemicals for weed management, and make available signage for public use at Town Hall.
- Persons desiring to not have chemical management techniques utilized on public properties directly adjoining their property may request a no-spray buffer when they agree to manage the noxious weeds that otherwise would have been treated by the Town.

**Comments taken from inputs during the previous goals and objectives development discussions*

Specific Chemical Recommendations

The following least-toxic, effective active ingredients available at the time of this Integrated Weed Management Plan for chemical treatments are recommended for the specified noxious weeds:

Leafy Spurge	- Imazapic
Spotted Knapweed	- Aminopyralid
Canadian Thistle	- Aminopyralid
Russian Knapweed	- Aminopyralid

XI. EXHIBITS

EXHIBIT A

Ridgway Municipal Code

12-1-1

CHAPTER 12

SECTION 1

Weeds and Brush

Subsections:

12-1-1 Removal Of Weeds And Brush.

12-1-1 REMOVAL OF WEEDS AND BRUSH.

(A) It shall be unlawful for any person to fail to remove or cut weeds or brush located upon his property or property in his control or possession, and upon that portion of abutting street and alley rights of way lying between said property and the center line of said rights of way, from time to time so that the stubble is kept no higher than 6 inches above the ground. (Ord 14-1999)

(B) Weeds or brush higher than 6 inches high are hereby declared to be a nuisance and may be abated in accordance with law.

(C) In addition to other remedies, the Town may abate weeds and brush, as follows:

(1) It may mail a notice to the owner or person in possession of the property ordering them to cut the weeds or brush addressed to the address listed in the County tax records, or in Town utility account records, unless a better address is known.

(2) If the weeds and brush are not removed within ten (10) days of the mailing, the Town may cause the weeds or brush to be removed and assess the cost of so doing against the property affected, together with 5% for inspection. Such assessment shall be mailed similarly to owner or person in possession, as provided in Subsection (C)(1), above, and shall be due as of the date of mailing. (Ord 14-1999)

(3) If the assessment is not paid within ten (10) days of mailing, the Town may certify the assessment, together with a 5% penalty, to the County Treasurer for collection as property taxes are collected. (Ord 14-1999)

ATTACHMENT 2

EXHIBIT B
RESOLUTION NO. 03-06

RESOLUTION OF THE TOWN COUNCIL OF RIDGWAY, COLORADO
ESTABLISHING A POLICY RELATIVE TO NOXIOUS WEED MANAGEMENT

WHEREAS, the proliferation of noxious weeds poses a genuine health threat to the Ridgway community; and

WHEREAS, the Town of Ridgway ("Town") has chosen to establish a noxious weed management program to help eradicate and control noxious weeds; and

WHEREAS, the community has expressed its desire to eliminate and contain noxious weeds without the use of toxic and poisonous chemical herbicides, the use of which may itself pose a health threat to the Ridgway community; and

WHEREAS, the Town Council has agreed to this type of management program and has expressed its desire to establish a policy relative to noxious weed management through the use of non-toxic, organic herbicides.

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF RIDGWAY, COLORADO that the Town shall not use toxic or poisonous, chemical-based herbicides within the Town limits toward the control of noxious weeds, and that the use of non-toxic, organic management practices shall be implemented.

PASSED AND APPROVED this 13th of August, 2003.

TOWN OF RIDGWAY

Pat Willits, Mayor

ATTEST

Pam Kraft, CMC
Town Clerk

ATTACHMENT 2

EXHIBIT C INTERGOVERNMENTAL AGREEMENT REGARDING WEED CONTROL

This Intergovernmental Agreement Regarding Weed Control entered into and effective this _____ day of _____, 2010, hereinafter referred to as the “Agreement” or the “IGA” entered into by and between the **Board of County Commissioners of Ouray County, Colorado (“County”)**; the **Town of Ridgway (“Town”)** and the **City of Ouray (“City”)**, and collectively referred to as (“Parties”) as follows:

WHEREAS, C.R.S. §35-5.5-101, *et seq.* is known as the Colorado Noxious Weed Act (“Act”) and the legislative declaration to the Act provides, in part, that “there is a need to ensure that all the lands of the state of Colorado, whether in private or public ownership, are protected by and subject to the jurisdiction of a local government empowered to manage undesirable plants as designated by the state of Colorado and the local governing body”; and

WHEREAS, further that: “certain undesirable plants constitute a present threat to the continued economic and environmental value of the lands of the state and if present in any area of the state must be managed”; and

WHEREAS, the Act provides at C.R.S. §35-5.5-105(3) that the County may cooperate with municipalities for the exercise of any or all of the powers and authorities granted by the Act through the use of an intergovernmental agreement; and

WHEREAS, Art. XIV, section 18(2)(a)(b), Colo. Const. and section 29-1-203(1), C.R.S., provide that government entities may cooperate or contract with one another to provide any function, service, or facility lawfully authorized to each of the cooperating or contracting units, including the sharing of costs, the imposition of taxes, or the incurring of debt, only if such cooperation or contracts are authorized by each party thereto with the approval of its legislative body or other authority having the power to so approve; and

WHEREAS, by Resolution 2002-017 the County adopted a Noxious Weed Management Plan which set forth a list of noxious weeds as well as a plan for the management of noxious weeds in Ouray County; and

WHEREAS, municipalities have plans in place? Per 35-5.5-106

WHEREAS, there currently exists the Ouray County Weed Advisory Board (“Weed Board”) that has the power and duty to recommend a management plan for the integrated management of designated noxious weeds and management criteria for noxious weeds and other duties as set forth by C.R.S. §35-5.5-107; and

WHEREAS, in order to develop integrated weed management plans, it is critical that the Weed Advisory Board include members from the Town and the City such that management plans may take into account all areas of infestation within Ouray County; and

WHEREAS, the County, City and the Town wish to effectively coordinate efforts to address the invasive noxious weeds in the respective jurisdictions; and create a more effective integrated weed management program;

ATTACHMENT 2

NOW THEREFORE, in consideration of the mutual promises between the Parties, and other good and valuable consideration, the receipt and sufficiency of which each hereby acknowledge, the Parties agree as follows:

1. On or before January 31 of each year, a designated representative of the Town and the City shall meet with the Ouray County Weed Manager to develop an annual operating plan for the ensuing year for the management of noxious weeds in each respective jurisdiction. All Parties shall cooperate in the implementation of the annual operating plans.
2. The City and the Town will each appoint a representative as a member of the Weed Board and such representative shall be the liaison between the City or the Town and the County Weed Department.
3. Except as otherwise agreed, all grants and contracts shall be made in the name of Ouray County in accordance with County rules and regulations, and the county weed manager or other individuals designated by the county shall be the responsible party for grant administration, fund accountability and administration of related contractual obligations. The Town and the City agree to provide supporting letters or other documentation as may be necessary to obtain grants or other funding.
4. All parties agree to work together to inventory, monitor, and prevent the spread of noxious weeds, and, as provided above, to seek funding for weed control as a cooperative weed management area.
5. The Parties may, by subsequent agreement, choose to share resources on a case by case basis or make contributions, reimbursements or transfer funds.
6. This contract shall not be construed to create a financial obligation of any party. All expenditures by any party shall be authorized by the respective party pursuant to a proper appropriation therefore.
7. No party is delegating decision making authority. Each party is responsible to make decisions within their jurisdictions. This agreement is not creating a legal entity of any sort.
8. This contract and implementation thereof shall be in accordance with all applicable laws and regulations,
9. This agreement does not restrict any party from participating in other public, private, or individual weed control activities which are not destructive of cooperative efforts under this Agreement.
10. Any party may terminate its participation in this Agreement at any time without cause, by giving written notice to the other parties.
11. On an annual basis, the governing bodies of each of the Parties shall meet and determine whether goals of this Agreement are being met and whether any modifications or amendments to this Agreement shall be made.

BOARD OF COUNTY COMMISSIONERS
OURAY COUNTY, COLORADO

ATTACHMENT 2

By: _____
Lynn M. Padgett, Chair

ATTEST:

Michelle Nauer, County Clerk and Recorder
By: Linda Munson-Haley, Deputy Clerk of the Board

CITY OF OURAY

By: _____

ATTEST:

TOWN OF RIDGWAY

By: _____

ATTEST:

ATTACHMENT 2

EXHIBIT D PUBLIC MEETING OUTLINE AND DETAILS

Meeting Outline and Timeline

Meetings	Date	Purpose
#1	Dec 7, 2010	Establish Process and Identify Resources
#2	Dec 21, 2010	Describe Property/ Review Inventory <i>Finalize Map of public properties and known weeds and locations</i>
#3	Jan 4, 2011	Develop Land Management Goals and Weed Management Objectives Guest Speaker: Susan Rose
#4	Jan 18, 2011	Set Priorities <i>Prioritizing management, target areas, resources available</i> Guest Speaker: Kelley Liston
#5	Feb 1, 2011	Open Forum <i>Scheduled time slots for public comment (schedule with Pam Kraft)</i> Finalize Management Priorities
#6	Feb 15, 2011	Summarize Inputs to Date Finalize Goals and Objectives Finalize Priorities
#7	Mar 1, 2011	Consider Actions <i>Techniques/methods of control</i> Guest Speaker: Jude Sirota on Management Techniques & Methods of Control
#8	Mar 15, 2011	Compile Integrated Weed Management Plan (IWMP) <i>Bring it all together: Develop Recommendations, methods, short and long term...</i>
#9	Apr 13, 2011	Presentation of Draft Plan to Public and Town Council

Time and Location

Meetings are Tuesdays, 4:00-6:00 PM in the Ridgway Town Hall Community Center- 201 North Railroad Street.

Details

The public is encouraged and welcome to participate in each meeting. Public meetings will be posted and advertised. Guest Speakers will be present at Meetings 3, 4, and 5 (above), and will present information germane to the scheduled workshop topic. The presentation at Meeting #3 will review weed basics: 'Weeds 101'. The presentation at Meeting #4 will review management priorities, identification of priority species and priority infestations targeting areas for weed management, consideration of resources required for weed management. The presentation at Meeting #5 will review management techniques, best practices, environmental conditions, underlying causes, methods of control, etc. Presentations will begin at 4:00 PM and be approximately 30-60 minutes in length. After the presentation, workshop facilitation will begin and public inputs will be solicited and summarized. *Don Batchelder will be present at Meetings #3 through #7 for facilitation. Weed management resources, meeting notes, and plan related information will be available throughout the process at www.town.ridgway.co.us/weedcommittee.html. Committee members will meet after each meeting to summarize inputs and draw conclusions from the meeting. Additional committee meetings may be scheduled if needed.

Committee Member Roles

Committee Leads – Pam Kraft, Sheelagh Williams
Community Outreach – Pam Kraft, Ellen Hunter
Technical Resource and Assistance – Dickson Pratt
Meeting Notes – Pam Kraft
Facilitation Assistant – Joanne Fagan

ATTACHMENT 2

EXHIBIT E Meeting Agendas, Objectives, Notes

WEED MEETING #2 (PROJECT SCOPE AND INVENTORY) – DEC 21, 2010

TO: WEED COMMITTEE
FROM: JEN COATES
SUBJECT: MEETING #2 OBJECTIVES
DATE: 12/21/2010

1.) Project scope and meeting schedule

2.) Describe and Inventory Management Areas

a.) Define areas of weed management

Town boundary: public / private lands
Topography – river, wetlands, pasture
Uses – public/private, parks, passive use
Soil types

b.) Identify resources – *this will aid in developing management goals and objectives*

Wetlands, streams, ponds, lakes, rivers, riparian areas, vegetation types (prairie, shrub, forest), wildlife range, sensitive plant/animal species, drinking water, fish, flora/fauna, native plant communities, irrigated pasture, livestock, threatened plant communities, parks/developed recreation areas, etc.

c.) Inventory/define known noxious weed species – *important for prioritizing management*

From Maps:

Spotted Knapweed – B
Russian Knapweed – B
Leafy Spurge – B
Canada Thistle – B
Hoary Cress – B
Absinthe Wormwood – B
Dames Rocket – B
Oxeye Daisy – B
Scotch Thistle – B

d.) Re-inventory in the spring

Every spring – *May, June?*

Targeted areas for inventory – *Prioritize: disturbed areas, species most difficult to control, and highest value natural resource areas?*

3.) Next Meeting – Jan 4th at 4PM: Management Goals and Objectives

Sub-Committee to Develop an Integrated Weed Management Plan

ATTACHMENT 2

December 21, 2010 4:00 p.m. Ridgway Community Center
Meeting Notes

Members Present: Heather Bussey, John Clark, Joanne Fagan, Ellen Hunter, Pam Kraft, Jean McDonnell, Dickson Pratt, Sheelagh Williams

Facilitators: Jen Coates and Don Batchelder

Audience: Ron Mabry and Susan Baker

Discussion: review of map identifying location of noxious weeds

Map identifies noxious weeds on public property within town boundaries and also the water plant and Lake Otonowanda

Weed populations are all Class B by State identifications; Ouray County priorities include two identified plants, knapweed and absinth wormwood

Bike path as shown on map includes Railroad Street to the BLM property

Consolidate the map identifying weed populations on public property with the one used to identify populations on private property and develop one map using different colors for public and private properties

Size and density of populations need to be identified; Jen, Heather and Ron will meet to identify the size and density of populations and incorporate into the map

July 1st perform an inventory to update the map; the plan should state an inventory will be performed annually on July 1st

Plan should state intention to educate citizens regarding private property and the Town Council can address enforcement and requirements for private property owners at a later date

Define which weeds are a priority for eradication and then start removal at the most dense locations

Address in the plan rights of ways are the responsibility of the adjacent property owner (per municipal code regulations)

Important natural resources: river corridor; wetlands; parks; drinking water; irrigation ditches and streams; landscaped plantings i.e.: trees and shrubs; natural willow populations; wildlife habitat

Place in the plan a requirement for notification to adjacent property owners when eradication work is performed by the town

ATTACHMENT 2

**WEED MEETING #3: MANAGEMENT GOALS AND OBJECTIVES
AGENDA AND MEETING OBJECTIVES
JANUARY 4TH, 2010 – 4PM AT RIDGWAY TOWN HALL**

TO: WEED COMMITTEE/ PUBLIC PARTICIPANTS
FROM: JEN COATES
SUBJECT: MEETING #3: AGENDA AND OBJECTIVES
DATE: DEC 30, 2010
EST TIME: 2.5 - 3 HOURS

1.) Review of Draft Plan: Weed Inventory/ Map, from Dec 21, 2010 Meeting – Jen Coates (*10 minutes*)

2.) Introduction and Meeting Purpose – Pam Kraft (*5 minutes*)

3.) Guest Speaker - Susan Rose (*30-60 minutes*)

4.) Meeting Process, Structure, Focus – Don Batchelder (*5 minutes*)

5.) Establish Land Management Goals – Don Batchelder (*30 minutes*)

**Describe conditions you wish to create or maintain, not just weed related*

**Focus on human values, natural resources, financial resources*

Examples of land management goals:

- a.) Provide opportunities for public education
- b.) Identify and protect natural resources
- c.) Be a good neighbor
- d.) Maintain natural habitat, including native plant and animal populations

6.) Establish Weed Management Objectives – Don Batchelder (*45 minutes*)

**Specific, measureable, achievable statements with deadlines and specific actions*

**Link the general goal statements to the specific management actions*

Examples of weed management objectives (linked to goals above):

- a.) Goal: Provide opportunities for public education

Objective - Insure the Town's weed management plan and weed identification information are readily available on the Town website and at Town Hall by May 2011, and updated as necessary

ATTACHMENT 2

Objective- Work with Ridgway Schools and the Ouray County Weed Manager to develop an educational plan on noxious weed education and management in 2011 for students including annual field trips and experiential outdoor education

b.) Goal: Identify and Protect Natural Resources

Objective - Develop and implement revegetation plans in conjunction with all weed management efforts, as necessary, to insure native habitats are restored and management efforts and resources are maximized

c.) Goal: Be a good neighbor

Objective - work collaboratively with private property owners on priority areas for weed management to insure efforts by both public and private parties are effective through shared resources, open dialogue, and targeted management techniques

d.) Goal: Maintain natural habitat, including native plant and animal populations

Objective - Prioritize management and employ various techniques such as early season mitigation, that reduce the spread of weed seed within 3 years (by 2013) in heavily populated areas of spotted knapweed, Canada thistle, and other specified noxious weeds where seed management is appropriate to prevent proliferation of weeds that work to choke out native vegetation and natural habitats, and insure management methods will be effective in decreasing these weed populations within 5 years (by 2015)

7.) Wrap Up – Don Batchelder (25 minutes)

Committee will summarize inputs and finalize the goals and objectives for the plan

8.) Next Meeting – Jan 18th at 4PM: *Setting Priorities*

ATTACHMENT 2

Sub-Committee to Develop an Integrated Weed Management Plan
January 4, 2011, 4:00 p.m. Ridgway Community Center
Meeting Notes

Members Present: Joanne Fagan, Ellen Hunter, Pam Kraft, Jean McDonnell, Dickson Pratt, Sheelagh Williams

Facilitators: Jen Coates and Don Batchelder

Audience: There were 13 people present in the audience

Discussion: Presentation of Weeds 101 and Development of Land Management Goals and Weed Management Objectives

Susan Rose, Horticulture Education Specialist with CSU Extension Tri River Area Office presented a slide presentation and stated she would provide a basic introduction talk to weeds and why they matter and why they are a problem.

Information from the slides included:

What's a weed – a plant where you don't want it; non-native; invasive; plant whose virtues are yet to be discovered. Weeds are defined by human perspective, there is no scientific definition

Problems associated with crops and in gardening - there can be 50,000 weed seeds in a cubic foot of garden soil; seeds can remain dormant and viable for up to 50 years based upon the species; weeds compete with desirable plants, reduce crop yields and quality and increase labor and production costs; some are hosts for insects and disease to other plants; some are poisonous or irritating to people, animals and livestock

Increase costs for upkeep of homes and maintenance in recreation areas – increase cost of maintaining roadways and irrigation ditches; reduce land values; limit crop choices; increase reforestation and revegetation costs

Weeds affect us by - changing fire cycles; winter annual grasses can ignite easily by lightning strikes; wildfires occur far more often within infested areas; weeds threaten wildlife habitat; agriculture estimated costs - economic impact exceeds 25 billion annually in US due to crop loss, weeds account for 45% of annual crop loss (insects 30%, disease 20%), without weeds competing with crops world crop production would increase at least 11.5%; roadside and canal maintenance; loss of property value; loss of income from recreation; time lost from work due to allergies

To develop a weed management plan must identify if the plant is a dicot or monocot; annual, winter annual, biennial or perennial

A noxious weed is defined legally by state definitions and are categorized in A, B & C lists and have three different management strategies. Those on the A list must be eradicated wherever detected; are often toxic or have serious undesirable characteristics; some of the weeds on the list are not in the state yet; B list requires management and prevention of further spreading; is typically the largest classification on the noxious weed list; C list use integrated management methods and provide educational, research and biological control resources

ATTACHMENT 2

Integrative management methods – decision making process that relies heavily on regular monitoring to determine if and when treatment is needed; minimize the use of chemicals; protect the environment and save money

Control methods in integrative management psychology

1) Prevention is the first line of defense for weed control

- always use clean seed
- avoid manures with viable seed
- inspect equipment used during roadside maintenance
- no soil from weed infested areas
- inspect nursery stock
- don't allow existing sources to reseed

2) Cultural methods support prevention

- crop rotation
- good soil preparation
- use mulches
- good watering practices
- monitoring and scouting

3) Control methods

- mechanical – mowing, hoeing, pulling, tilling
- knowing life cycle of weeds helps to know which method to use
- burning is more effective along ditch banks, roadways
- biological control – introduction of insects and diseases brought in from the plants original environment and released in a controlled environment (this is a long term fix and since not a quick fix is not suitable for A list weeds)
- goats
- chemical controls – used in conjunction with other methods (to use need to know the life cycle of the weed, right time to intervene and right chemical for the job); often the most cost effective choice

Weed identification - correct identification is key to successful management; must know if annual, biannual or perennial

If an annual – prevent seed formation and dispersal; mechanical is more effective and should be done after the seed sets (winter annuals germinate in late summer or fall)

Biannual – form rosette first year, bloom and set seed in the second year; prevent seed spread

Perennials – may spread by rhizomes; most effective management is chemical; tilling and grubbing will need to be used in follow up; treatment most successful in early bloom or in fall; in summer cut seed heads to prevent spread of seeds

Integrated weed management keys – observation and scouting; correct identification; education about lifecycles and points of intervention; timely follow through; evaluation of results; modification of tactics when necessary; prevention is the always the starting point

Jen Coates explained at the previous meeting the committee developed a map which identifies weed populations, the types of plants, where they are located and if on public or private property and natural resources which need to be evaluated. She explained tonight the committee will be working on developing management goals and objectives.

ATTACHMENT 2

Don Batchelder explained the land management goals should describe the conditions to create or maintain and focus on human values, natural and financial resources. Weed management objectives should be specific, measureable and achievable statements with deadlines and specific actions.

The committee and audience created the following list of items. There was not enough time to complete the list so members agreed to bring ideas for remaining objectives to the next meeting.

The meeting adjourned at 7:05 pm

ATTACHMENT 2

**WEED MEETING #4: FINALIZE OBJECTIVES/ MANAGEMENT PRIORITIES
AGENDA AND MEETING OBJECTIVES
JANUARY 18TH, 2010 – 4PM AT RIDGWAY TOWN HALL**

TO: WEED COMMITTEE/ PUBLIC PARTICIPANTS
FROM: JEN COATES
SUBJECT: MEETING #4: AGENDA AND OBJECTIVES
DATE: JANUARY 18TH, 2011
EST TIME: 2.75 HOURS

- 1.) **Introduction** – Pam Kraft (5 minutes)
- 2.) **Meeting Purpose** – Don Batchelder (5 minutes)
- 3.) **Guest Speaker: Management Priorities** – Kelley Liston (30 minutes presentation, 10 minutes Q&A)
- 4.) **Review of Draft IWM Plan** – Don Batchelder (10 minutes)
- 5.) **Finalize Goals and Objectives**, continued from Jan 4, 2011 Meeting – Don Batchelder (30 minutes)
- 6.) **Establish Priorities** – Don Batchelder (60 minutes)
 - *Focus control efforts on:
 - those weed species, which have the greatest impact on resource base
 - those which become more difficult to control if action is delayed
 - *Establish priorities by determining priority species and priority infestations in light of objectives
 - *All weed species identified in Ridgway's Plan to date are Colorado B-list (management required)
 - A. **Prioritize the Weed Species and Revisit Objectives to determine if objectives need revised**
 - B. **Determine which Infestations have the Highest Priority**
- 7.) **Wrap Up** – Don Batchelder (5 minutes)

Committee will summarize inputs and finalize the priorities
- 8.) **Next Meetings** – (5 minutes)
 - Discussion of meeting dates and timeline changes
 - Special Committee Assignments and Public Presentations
 - Next Meeting - Feb 01 at 4PM: *Consider Actions/ Management Techniques*
 - Meeting Notes
 - Sub-Committee to Develop an Integrated Weed Management Plan
 - January 18, 2011 4:00 p.m. Ridgway Community Center

ATTACHMENT 2

Members Present: Heather Bussey-Patterson, John Clark, Joanne Fagan, Ellen Hunter, Pam Kraft, Jean MacDonald, Dickson Pratt, Sheelagh Williams

Facilitators: Jen Coates and Don Batchelder

Audience: There were 15 people present in the audience

Discussion: Presentation of Management Priorities and Establishment of Priority Weed Species

Kelley Liston, Rangeland Management Specialist with Ouray Ranger District, presented a slide presentation on establishing priorities for weed management. She stated management “is not easy” and involves “complex planning decisions”. Prioritize weeds by targeting species “that posse the largest threat”. This includes identifying which species help meet the objectives, “while not treating them at the expense of something else” and determining “what are the trade offs associated with the addressing the problem area”.

Information from the slides included:

1. Establish Weed Priorities

- conduct on site inventory (maps, local knowledge, site access)
- what invasive species are present
- what threat is created by the invasive species that are present (highly aggressive, poisonous, assets that are threatened)
- which species are not present but within a specified distance
- any planning/management documents that exist that address additional resource objectives
- how feasible is treatment
- is it on the state/county/local weed lists

2. Prioritize Weed Species

- work with the County Weed Manager
- get familiar with state & county weed lists
- evaluate weed management objectives to see if they are consistent with the weed species prioritization

3. High Priority Weed Infestation

- once priority weed species are identified then determine which infestation is highest
- small isolated infestations are priority and most easily treated and may be a species that doesn't pose a high threat
- infestation of high priority weed species would be uncontrollable if left untreated
- areas of frequent, high disturbance, such as road sides, parking areas, trails, ditches and streams and rivers
- frequent disturbance creates favorable habitat for weeds to become established
- weed seeds are spread by vehicles, animals and water

There were questions from the audience for Kelley.

The committee reviewed the goals and objectives from the previous meeting and amended and added items to the lists, with input from the audience.

The committee established a prioritization of weed species as follows:

ATTACHMENT 2

1. Spotted Knapweed
2. Canada Thistle
3. Russian Knapweed
4. Leafy Spurge
5. Hoary Cress
6. Hounds Tongue
7. Scotch Thistle

The following areas which have infestations were identified as having the highest priority:

1. Uncompahgre River Corridor
2. Lake Otonawanda
3. Uncompahgre River Trail
4. Riparian areas and ditches
5. Tackle small patches of noxious weeds first
6. Regional Athletic Park
7. Roadsides and trails

The meeting adjourned at 6:45 p.m.

Submitted by: Pam Kraft

ATTACHMENT 2

**WEED MEETING #5: PUBLIC FORUM
AGENDA AND MEETING OBJECTIVES
FEBRUARY 1ST, 2010 – 4PM AT RIDGWAY TOWN HALL**

TO: WEED COMMITTEE/ PUBLIC PARTICIPANTS
FROM: JEN COATES
SUBJECT: MEETING #5: PUBLIC FORUM
DATE: FEBRUARY 1, 2011
EST TIME: 2.75 HOURS

1.) Introduction and Meeting Purpose – Pam Kraft and Don Batchelder (10 minutes)

2.) Presentation Schedule – each speaker will have 10 minutes to present on their specific topic, offering solutions for the integrated weed management, followed by 5 minutes for questions and answers:

1. Timothy Seastedt
2. Joanne Fagan
3. Heather Bussey Patterson
4. Pam Kraft
5. Couple from Log Hill (sorry didn't get their name!)
6. Kimah McCarty
7. Heidi Comstock
8. Susan Baker

3.) Wrap Up – Don Batchelder (5 minutes)

4.) Finalize Goals and Objectives (if time allows) – Don Batchelder (20 minutes)

5.) Next Meeting – (5 minutes)

Next Meeting - Feb 15 at 4PM

ATTACHMENT 2

Meeting Notes

Sub-Committee to Develop an Integrated Weed Management Plan
February 1, 2011 4:00 p.m. Ridgway Community Center

Members Present: Heather Bussey-Patterson, John Clark, Joanne Fagan, Ellen Hunter, Pam Kraft, Jean McDonnell, Dickson Pratt, Sheelagh Williams

Facilitator: Don Batchelder

Audience: There were 14 people present in the audience

Discussion: Committee Member and Public Presentations on Control Methods

1. Tim Seastedt, Professor of Ecology and Evolutionary Biology at the University of Colorado at Boulder spoke via the telephone, and slides were presented for his presentation. He explained he is a research scientist and in the mid 90's began scientific research to find sustainable solutions for management of regionally abundant invasive weed species. He has researched sustainable control methods using organisms that harm the weed and management techniques that favor particular species. The research is intended to find cost effective methods and provide sustainable eco systems. His projects encompass 150,000 acres of public property in the City and County of Boulder, which is being used as a laboratory to test and research management controls. He presented background on a study area of 50 acres of spotted knapweed that the CU Invasive Plant Lab has been working with since 2005. A biological control program was developed which has prevented the spread of the plant and is contributing to its apparent slow decline.

He suggested the Town address the infestation of spotted knapweed along the river corridor with the use of insects and proactive control measures. The first step is to focus on containment and then focus on controls to reduce seed dispersal. He noted the plant needs seed production to survive and any control measures to minimize seed production will help, including damaging the plants. The use of this method, he said, guarantees that if regrowth occurs, it does not produce more viable seed. Hand pulling the plant would be the best method along with the planting of competitive plants, as competition with other plants will kill the seedlings, and the use of insects.

On questions from the committee and audience he explained there are four insects which attack spotted knapweed. Two are usually present with the plant, both species are gull flies, which stop seed production and winter in the seed heads. The other are weevils, which will over winter in the soil. One type eats the seeds and foliage and the other the root. Approximately 500 insects are needed for a million plants and will take five to six years to build a colony. The best competitive plants would be native and non-native grasses. The Boulder project has had a modest decline with the use of insects and hand pulling.

2. Joanne Fagan addressed the use of insects for biological weed control. She contacted an insectory in Palisade, Colorado which shared research on which insects control specific species, and will not affect other species. The insects act as predators and will control, but not eradicate, a species. They need to over winter so they can breed and create a population to impact the weed infestation, and it will take between three and five years to have a colony large enough to make an impact. The cost of obtaining the insects is affordable.

ATTACHMENT 2

3. Heather Bussey Patterson addressed the use of mushroom spores as a control method. These products are marketed as soil amendments and they work to control seed populations, and the microorganisms in the product aid the soil. The spores will feed on woody stocks and seed production. The cost for application is \$70 to 100 an acre. She reported she has contacted a company that is willing to donate the product for experimental test plots, and a CSU professor would oversee the testing.

4. Pam Kraft spoke regarding the use of goats for weed management. She explained the City of Denver has used hired a company that supplies herds of cashmere goats to control weeds in city parks. Goats eat broadleaf plants, such as thistle and bindweed, and will ignore grasses. The Canon City Recreation District owns a herd of 16 goats, all of which have been donated to the City and include an eclectic mix of breeds. The goats are used to control weeds in the natural parks and along the river corridor. Weed management is very successful, the only challenge that has been encountered is perimeter fencing to confine the goats in areas that are being eradicated. Recently the goats completely cleared a park area of knapweed. They are also eating the russian olive and tamarisk plants along the river. The city maintenance crew take care of the goats, which are housed in a chain link fenced area at the maintenance yard. They are visited by the public who come to feed the goats, which will eat anything offered to them. The Canon City Water Department also has a herd of goats that live up at two settling basins, where the city stores its water supply.

The use of goats to reduce weed populations is an effective bio-control agent and is economical. They eat 25 percent of their body weight each day; and their hooves till and aerate the soil as they trample in their own manure which becomes fertilizer. Goats prefer plants that are at eye level and eat weeds, and also poisonous plants. They will not eat grasses if there are weeds in the area. The older males prefer different plants than the females and younger goats. She explained they will eat weeds the committee has identified on the list of priority weeds – canada thistle, leafy spurge, scotch thistle and spotted knapweed. The way in which the goats eat weeds does not allow the plant to photosynthesize and produce any more seeds.

5. Kimah McCarty presented an overview of the eradication project undertaken last summer by students who hand pulled knapweed along the river corridor. She encouraged the committee to continue the Town's policy to disallow the use of herbicides on public property. She addressed the need to protect soils, encourage organic gardening, and teach youth ways to work in harmony with the land. She spoke regarding detrimental health effects from exposure to herbicides, and cancer causing agents contained in chemicals. She explained herbicides can affect the food chain, birds, insects, wildlife and water sources.

6. Heidi Comstock expressed concerns regarding chemical exposure and public safety. She reported on new discoveries in photon technology and noted changes in physics are happening so quickly that new technologies may be available before the plan is even prepared. She encouraged the committee to consider the need to protect the environment and ensure a continuation of tourism.

7. Susan Baker encouraged educating the public that the use of herbicides on private properties can impact neighbors. She asked the committee to consider not including the use of herbicides as a control method and chose the use of alternative methods. She presented documentation on the dangers of toxic chemicals, and expressed concerns if herbicides are used along the river it may have a detrimental affect on the bald eagle population. Glen Rein explained he is a biochemist and addressed the dangers of chemical toxicity and impacts on humans, wildlife, and water sources.

It was noted the next meeting will be held on February 15th at which time the committee will finalize goals and objectives and management priorities. At the March 1st meeting a speaker will address control methods for specific weed species.

ATTACHMENT 2

The meeting adjourned at 6:45 p.m.

Submitted by: Pam Kraft

ATTACHMENT 2

**WEED MEETING #6:
AGENDA AND MEETING OBJECTIVES
FEBRUARY 15TH, 2010 – 4PM AT RIDGWAY TOWN HALL**

TO: WEED COMMITTEE/ PUBLIC PARTICIPANTS
FROM: JEN COATES
SUBJECT: MEETING #6:
DATE: FEBRUARY 15, 2011
EST TIME: 2.5 HOURS

- 1.) Introduction and Meeting Purpose – Pam Kraft and Don Batchelder (10 minutes)**
- 2.) Committee Discussion – Don Batchelder (30 minutes)**
Committee summarize discussions and public inputs to date
- 3.) Finalize Goals and Objectives– Don Batchelder (30 minutes)**
- 4.) Finalize Priorities for Weed Management - Don Batchelder (40 minutes)**
- 5.) Review Chemical Application Protocol – Don Batchelder (20 minutes)**
- 6.) Meeting Schedule – Don Batchelder (10 minutes)**
Next Meeting – March 1st at 4PM: Management Techniques with Guest Speaker, Jude Sirota
Meeting Schedule – confirm meeting schedule, remaining dates, scope and summary

ATTACHMENT 2

Sub-Committee to Develop an Integrated Weed Management Plan February 15, 2011 4:00pm Ridgway Community Center

Members Present: John Clark, Joanne Fagan, Ellen Hunter, Pam Kraft, Jean McDonnell, Dickson Pratt, Sheelagh Williams

Facilitators: Jen Coates and Don Batchelder

Don reminded the committee and public of the reasons for an integrated weed management plan: Colorado State legal requirements, efficient use of the Town Council and the need for river restoration.

The Committee reviewed the Goals and Objectives, including Dickson's proposal for a much simpler set with a focus on noxious weeds. The consensus was that Dickson's proposal was much simpler, on task and easier for staff to interpret, track and achieve. Jean proposed the addition of an objective to use the "least toxic method to reduce or eliminate priority noxious weeds that is feasible and effective". Education was also added as an objective. Staff was directed to revise the draft plan to reflect the consensus.

The Committee discussed what should be included in the Integrated Weed Management Plan. There was consensus that Purpose should include "restoration, maintenance and beautification of public property".

The Committee then moved to prioritization of location specific noxious weeds. Before discussion of the specifics, the Committee agreed on a process and criteria which would be used and vetted in this initial evaluation and then included in the Integrated Weed Management Plan for annual use thereafter. Criteria include town resources (money, labor), additional resources (volunteers, grants, donations), species of noxious weeds present and size and location of infestations. Joanne agreed to redo the matrix of locations, noxious weed species and priority based on the criteria the Committee developed and make that available at the next meeting to compare it to the matrix based on prior "ad hoc" committee input. She will also add the likely cost since that was included as a criteria for determining action.

ATTACHMENT 2

**WEED MEETING #7:
AGENDA AND MEETING OBJECTIVES
MARCH 1ST, 2010 – 4PM AT RIDGWAY TOWN HALL**

TO: WEED COMMITTEE/ PUBLIC PARTICIPANTS
FROM: JEN COATES
SUBJECT: MEETING #7: METHODS AND TECHNIQUES
DATE: MARCH 1, 2011
EST TIME: 2.5 HOURS

- 1.) Introduction and Meeting Purpose – *Sheelagh Williams (10 minutes)***

- 2.) Presentation of Methods and Techniques – *Jude Sirota (30 minutes; 10 minute QA)***

- 3.) Review Draft Management Plan and Inputs to Date – *Don Batchelder (20 minutes)***

- 4.) Identify Control Methods for Priority Noxious Weeds - *Don Batchelder (70 minutes)***
Committee will discuss management techniques for priority weeds and then open to public comment

- 5.) Meeting Schedule – *Don Batchelder (10 minutes)***
Next Meeting – March 15th at 4PM: Management Techniques Continued

ATTACHMENT 2

Sub-Committee to Develop an Integrated Weed Management Plan
March 1, 2011 4:00pm Ridgway Community Center

Members Present: Heather Bussey, John Clark, Joanne Fagan, Ellen Hunter, Jean McDonnell, Dickson Pratt, Sheelagh Williams

Facilitators: Jen Coates and Don Batchelder

Jude Sirota gave a presentation on the techniques which can be used to control weeds. She presented both a general view and then provided specific information on the availability and effectiveness of various control techniques for weeds known to exist in Ridgway. She also provided some ideas for a volunteer program. Jude answered questions from the committee and the public. One point of emphasis was that if herbicides are used, the skill of the licenses applicator is critical to minimizing potential adverse impacts on humans and the environment.

The Committee reviewed the draft Integrated Weed Management Plan and made a few recommendations. Jen and Joanne will make the recommended changes.

ATTACHMENT 2

**WEED MEETING #8:
AGENDA AND MEETING OBJECTIVES
MARCH 15TH, 2010 – 4PM AT RIDGWAY TOWN HALL**

TO: WEED COMMITTEE/ PUBLIC PARTICIPANTS
FROM: JEN COATES
SUBJECT: MEETING #8: METHODS AND TECHNIQUES/ FINALIZING THE PLAN
DATE: MARCH 15, 2011
EST TIME: 2.5 HOURS

- 1.) **Introduction, Meeting Purpose, Discussion Format** – *Sheelagh Williams (5 minutes)*

- 2.) **Confirm Control Methods for Priority Noxious Weeds** - *Don Batchelder (120 minutes)*
Committee will discuss management techniques for each priority weed and location, and then open the public comment period

- 3.) **IS IT DONE...** or one last meeting?!?

ATTACHMENT 2

Meeting Notes

Sub-Committee to Develop an Integrated Weed Management Plan

March 15, 2011 4:00 p.m. Ridgway Community Center

Members Present: Heather Bussey-Patterson, John Clark, Joanne Fagan, Ellen Hunter, Pam Kraft, Jean McDonnell, Dickson Pratt, Sheelagh Williams

Facilitator: Don Batchelder

Audience: There were 6 people present in the audience

Discussion: Control methods for priority weeds

At the last meeting the committee asked staff to work with the draft plan and insert Proposed Management Techniques from the Carbondale Integrative Weed Management Plan. The committee reviewed those inserts which addressed prevention/revegetation; cultural; biological; mechanical and chemical control methods and added, deleted or modified the content. Each identified weed type was addressed (leafy spurge, spotted knapweed, canada thistle and russian knapweed) and then modified for each area that the weed has been located on Town owned property and rights of ways. The committee also amended Attachment C: Chemical Application Protocol.

The meeting adjourned at 7:05 p.m.

Submitted by: Pam Kraft

ATTACHMENT 3

RESOLUTION NO. 22-01

**A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF
RIDGWAY, COLORADO, AMENDING THE POLICY RELATIVE
TO NOXIOUS WEED MANAGEMENT**

WHEREAS, the Town of Ridgway, Colorado (“Town”) is a home rule municipality and political subdivision of the State of Colorado (“State”) organized and existing under a home rule charter (“Charter”) pursuant to Article XX of the Constitution of the State; and

WHEREAS, in 2003, the Ridgway Town Council adopted *Resolution No. 03-06, Establishing a Policy Relative to Noxious Weed Management*; and

WHEREAS, through Resolution No. 03-06, the Town Council resolved to not use toxic or poisonous, chemical-based herbicides within the Town limits toward the control of noxious weeds; and

WHEREAS, after several discussions with Ouray County Vegetation Management and in order to more effectively address and manage noxious weeds on public properties within the Town of Ridgway, the Town Council has agreed to modify the Policy Relative to Noxious Weed Management to allow for chemical-based herbicide application when deemed necessary by Town staff and Ouray County Vegetation Management personnel, and in accordance with the Chemical Application and Protocol Recommendations depicted in the *2011 Town of Ridgway Integrated Weed Management Plan*.

NOW THEREFORE, BE IT RESOLVED by the Ridgway Town Council that the Town shall not use toxic or poisonous, chemical-based herbicides within the Town limits toward the control of noxious weeds, and that the use of non-toxic, organic management practices shall be implemented, unless chemical-based herbicide application is deemed necessary by Town staff and Ouray County Vegetation Management personnel, at which point it must be administered in accordance with the Chemical Application and Protocol Recommendations depicted in the 2011 Town of Ridgway Integrated Weed Management Plan.

ADOPTED AND APPROVED this ____ day of January 2022.

John Clark, Mayor

ATTEST:

Pam Kraft, Town Clerk

AGENDA ITEM #10



To: Honorable Mayor Clark and Ridgway Town Council
From: Preston Neill, Town Manager
Date: January 4, 2022
Agenda Topic: **Discussion and direction regarding graywater use in Ridgway**

ACTION BEFORE COUNCIL:

Council is asked to discuss and provide direction regarding graywater use in Ridgway given the State of Colorado’s requirements, prohibitions, and standards for graywater use for nondrinking purposes.

BACKGROUND:

Water conservation includes several types of strategies including reduction in water losses, protection of water supplies, and beneficial reuse. Graywater falls under the third strategy, beneficial reuse, and addresses water from sinks, showers, bathtubs, and laundry machines. According to the Colorado Department of Public Health and Environment (CDPHE), graywater is a portion of the water used in a residential, commercial, or industrial building that may be collected after the first use and put to a second beneficial use. Every time a person showers or washes clothes, graywater is made, and it is usually disposed of. Graywater can perform two important, water-intensive functions: landscape irrigation and toilet flushing.

While the *Town of Ridgway Master Plan* does not specifically address graywater, *Policy ENV-3.6: Water Conservation* states, “Actively manage the Town’s water resources to conserve water, especially in times of limited availability.” Similarly, the *San Miguel & Ouray County Regional Climate Action Plan* doesn’t specifically address graywater, but it does recommend actions to “Evaluate and implement system methodologies to reduce water-associated energy use”, as well as “Encourage and incentivize low flow water fixtures.”

CDPHE adopted **5 CCR 1002-86, Regulation No. 86 – Graywater Control Regulation (Regulation 86)** on May 11, 2015, making graywater management an opt-in program, thus not mandatory, for local jurisdictions. Regulation 86 is appended to this memo and outlines requirements, prohibitions, and standards for graywater use for nondrinking purposes. Graywater sources may include water discharged from bathroom and laundry-room sinks, bathtubs, showers, and laundry machines. Graywater may not include water discharged from toilets, urinals, kitchen sinks, dishwashers, and non-laundry utility sinks. To allow graywater use, local jurisdictions must adopt an ordinance or resolution to allow graywater use within their jurisdiction by developing a graywater control program that meets the requirements of Regulation 86. Each local jurisdiction with a local graywater control program has exclusive enforcement authority regarding compliance with the ordinance or resolution. The Colorado Water Quality Control Division oversees state-wide implementation of Regulation 86. As part of the state-wide implementation, each local jurisdiction that chooses to adopt a local graywater control program must notify the Water Quality Control Division within 60



days of program adoption, implementation, revision, or modification. A copy of the ordinance or resolution must be submitted to the Water Quality Control Division. According to Bret Icenogle, Engineering Section Manager with CDPHE, several communities across the state have adopted an ordinance establishing a graywater control program, including the City of Denver, the Town of Castle Rock, the City of Golden, and Pitkin County.

On May 7, 2018, the Water Quality Control Commission held an informational hearing to gather feedback for a proposed rulemaking scope to update the Graywater Control Regulation. The division initiated the stakeholder engagement process but placed the effort on hold due to competing obligations, limited resources, and the COVID-19 pandemic. The Commission has delayed the stakeholder engagement process until 2022.

According to Regulation 86, only two types of graywater systems are allowed. The first one is informally called “laundry to landscape” and is characterized as Category A and Category B within Regulation 86. Graywater collected from bathroom and laundry room sinks, bathtubs, showers, and laundry machines can be used for subsurface irrigation within the confines of the legal property boundary. The second one is more complicated and costly and is characterized by Category C and Category D within Regulation 86. Graywater collected from bathroom and laundry room sinks, bathtubs, showers, and laundry machines can be used for indoor toilet and urinal flushing and outdoor, subsurface irrigation within the confines of the legal property boundary. It’s worth noting that graywater must not be stored for more than 24 hours unless the graywater has been treated by a graywater treatment works that meets the design requirements of section 86.12 of Regulation 86. Moreover, all graywater must be stored inside a tank that meets the design requirements of section 86.12(A)(5) of Regulation 86.

FISCAL IMPACT:

While the establishment of a graywater control program would likely not have an appreciable impact on the Town’s budget, the staff resources necessary for putting such a program together, including program implementation, program administration, system inspections, system tracking, and enforcement, could be substantial. Graywater permits should follow the same building permit review and fee assessment as other construction projects.

COMMUNITY IMPACT:

The potential for graywater reuse to positively impact the Town’s sustainability goals is unknown and graywater reuse likely represents a small portion of an overall water conservation strategy. To-date, only a handful of jurisdictions have established a graywater control program, and some jurisdictions, like Douglas County, have elected not to move forward citing reasons such as:

- A lot of staff time to review what individual homeowners want to do and it would require a lot of inspection to verify that the system is done right.
- The difficulty of properly enforcing such a program.
- Impacts on stormwater quality and runoff.



- Can cause disease and or contamination if not filtered properly.
- Can increase nitrogen and phosphorus levels in stormwater runoff.
- Even biodegradable soaps and detergents can present a problem over time when graywater is used for irrigation.
- Graywater cannot be stored for more than 24 hours, or it will begin to putrefy due to the organic solids in the water.

DIRECTION REQUESTED:

Direction is requested from Council regarding graywater use in Ridgway given everything stated above and the State of Colorado's requirements, prohibitions, and standards for graywater use for nondrinking purposes. Should Council elect to move forward, staff would draft an ordinance that would propose to:

1. Establish a process to review and inspect graywater systems and adopt criteria for evaluation.
2. Align Ridgway's program with the same requirements as state regulations, including citations to Regulation 86.
3. Define common graywater terms.
4. Outline design criteria and required elements for applicants for use in drawings.
5. Describe the requirement for an Operations and Maintenance manual and how it must be kept with the infrastructure and used by the owner.
6. Provide a process and penalties for non-compliance.

ATTACHMENT:

Regulation No. 86 – Graywater Control Regulation

DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Water Quality Control Commission

REGULATION NO. 86 - GRAYWATER CONTROL REGULATION

5 CCR 1002-86

[Editor's Notes follow the text of the rules at the end of this CCR Document.]

86.1 Authority

This regulation is promulgated pursuant to the Colorado Water Quality Control Act (CWQCA) sections 25-8-101 through 25-8-703, C.R.S. In particular, it is promulgated under section 25-8-205(1)(g), C.R.S.

86.2 Purpose and Scope

A. Purpose

Graywater is expected to carry human pathogens with various risk levels and pathways that have the potential to be dangerous to public health. Therefore, the purpose of this regulation, as authorized by section 25-8-205(1)(g), is to describe requirements, prohibitions, and standards for the use of graywater for nondrinking water purposes, to encourage the use of graywater, and to protect public health and water quality.

B. Scope

This regulation establishes the allowed users and allowed uses of graywater within the state of Colorado; establishes the minimum state-wide standards for the location, design, construction, operation, installation, modification of graywater treatment works; and establishes the minimum ordinance or resolution requirements for a city, city and county, or county that chooses to authorize graywater use within its jurisdiction.

86.3 Severability

The provisions of this regulation are severable, and if any provisions or the application of the provisions to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this regulation shall not be affected thereby.

86.4 Voluntary Local Graywater Control Programs

Each local city, city and county, or county has the discretion to decide whether to adopt any of the graywater uses along with the associated minimum design criteria and control measures set forth in this regulation.

86.5 Materials Incorporated by Reference

The materials incorporated by reference cited herein include only those versions that were in effect as of June 30, 2015 and not later amendments to the incorporated material.

All materials referenced in this regulation may be examined online, where available, or at the Water Quality Control Division, at the Colorado Department of Public Health and Environment, 4300 Cherry Creek Drive South, Denver, Colorado 80246-1530.

86.6 Applicability

- A. All graywater uses and graywater treatment works must comply with the minimum requirements of this regulation as set forth in a local graywater control program.
1. Graywater treatment works may only be installed and operated within the jurisdiction of a city, city and county, or county with a local graywater control program.
 2. Graywater treatment works installed prior to the effective date of this regulation are only allowed under a local graywater control program and must meet the local requirements adopted pursuant to these regulations. Graywater treatment works that reuse graywater for outdoor subsurface irrigation which were approved by a local public health agency prior to May 15, 2013 and pursuant to 5 CCR 1002-43, section 43.4(J) or pursuant to 5 CCR 1003-6, section IV.J, and which are in compliance with all requirements imposed by the local public health agency, are deemed to be in compliance with the requirements of this regulation unless or until any modification to the graywater treatment works is made.
 3. Graywater treatment works installed under a local graywater control program which is later revoked or rescinded must within 365 days:
 - a. Be physically removed or permanently disconnected; or
 - b. Be regulated under a limited graywater control program for existing graywater systems. In this case, the local city, city and county, or county must continue the limited graywater control program for the existing graywater treatment works only; or
 - c. Be regulated under another jurisdiction's local graywater control program which assumes authority over the existing graywater treatment works. The existing graywater treatment works will need to comply with the new city, city and county, or county's local graywater control program, including any required graywater treatment works modifications.
 4. In the event that a property with a compliant graywater treatment works is annexed or de-annexed into a jurisdiction with differing graywater requirements, the property owner must within 365 days:
 - a. Ensure the graywater treatment works is physically removed or permanently disconnected; or
 - b. Ensure the graywater treatment works is incorporated into another city, city and county, or county's local graywater control program. This includes conforming to the minimum requirements of the new local graywater control program and may include improving or modifying the graywater treatment works.
- B. Graywater use is only allowed under a local graywater control program and must meet the local requirements adopted pursuant to these regulations. Unauthorized graywater use and discharges are prohibited.
- C. This regulation does not apply to: discharges pursuant to a Colorado Discharge Permit System (CDPS) permit, wastewater that has been treated and released to state waters prior to subsequent use, wastewater that has been treated and used at a domestic wastewater treatment works for landscape irrigation or process uses, on-site wastewater treatment works authorized under Regulation #43, reclaimed wastewater authorized under Regulation #84, water used in an industrial process that is internally recycled, and rainwater harvesting.

86.7 Enforcement and Division Oversight

- A. The local city, city and county, or county with a local graywater control program has exclusive enforcement authority regarding compliance with the ordinance or resolution and, if applicable, rule.
- B. The Colorado Water Quality Control Division oversees state-wide implementation of this regulation. As part of the state-wide implementation, a local city, city and county, or county that chooses to adopt a local graywater control program must notify the Water Quality Control Division within 60 days of program adoption, implementation, revision, or modification. A copy of the ordinance or resolution and, if applicable, rule must be submitted to: Water Quality Control Division, Colorado Department of Public Health and Environment, 4300 Cherry Creek Drive South, Denver, Colorado 80246-1530.

86.8 Definitions

- (1) “Agronomic rate” means the rate of application of nutrients to plants that is necessary to satisfy the nutritional requirements of the plants.
- (2) “Agricultural irrigation” means irrigation of crops produced for direct human consumption, crops where lactating dairy animals forage, and trees that produce nuts or fruit intended for human consumption. This definition includes household gardens and fruit trees.
- (3) “Closed sewerage system” means either a permitted domestic wastewater treatment works, which includes a permitted and properly functioning OWTS with a design capacity more than 2,000 gpd, or a properly functioning and approved or permitted OWTS with a design capacity of 2,000 gpd or less.
- (4) “Commission” means the Water Quality Control Commission created by section 25-8-201, C.R.S.
- (5) “Component” means a subpart of a graywater treatment works which may include multiple devices.
- (6) “Cross-Connection” means any connection that could allow any water, fluid, or gas such that the water quality could present an unacceptable health and/or safety risk to the public, to flow from any pipe, plumbing fixture, or a customer’s water system into a public water system’s distribution system or any other part of the public water system through backflow.
- (7) “Design” means the process of selecting and documenting in writing the size, calculations, site specific data, location, equipment specification and configuration of treatment components that match site characteristics and facility use.
- (8) “Design flow” means the estimated volume of graywater per unit of time for which a component or graywater treatment works is designed.
- (9) “Dispersed subsurface irrigation” means a subsurface irrigation system including piping and emitters installed throughout an irrigation area.
- (10) “Division” means the Water Quality Control Division of the Colorado Department of Public Health and Environment.
- (11) “Facility” means any building, structure, or installation, or any combination thereof that uses graywater subject to a local graywater control program, is located on one or more contiguous or adjacent properties, and is owned or operated by the same person or legal entity. Facility is synonymous with the term operation.

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- (12) "Floodplain (100-year)" means an area adjacent to a river or other watercourse which is subject to flooding as the result of the occurrence of a one hundred (100) year flood, and is so adverse to past, current or foreseeable construction or land use as to constitute a significant hazard to public or environmental health and safety or to property or is designated by the Federal Emergency Management Agency (FEMA) or National Flood Insurance Program (NFIP). In the absence of FEMA/NFIP maps, a professional engineer shall certify the floodplain elevations.
- (13) "Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot or as designated by the Federal Emergency Management Agency or National Flood Insurance Program. In the absence of FEMA/NFIP maps, a professional engineer shall certify the floodway elevation and location.
- (14) "Graywater" means that portion of wastewater that, before being treated or combined with other wastewater, is collected from fixtures within residential, commercial, or industrial buildings or institutional facilities for the purpose of being put to beneficial uses. Sources of graywater are limited to discharges from bathroom and laundry room sinks, bathtubs, showers, and laundry machines. Graywater does not include the wastewater from toilets, urinals, kitchen sinks, dishwashers, or nonlaundry utility sinks.
- (15) "Graywater treatment works" means an arrangement of devices and structures used to: (a) collect graywater from within a building or a facility; and (b) treat, neutralize, or stabilize graywater within the same building or facility to the level necessary for its authorized uses.
- (16) "Indirect connection" means a waste pipe from a graywater treatment works that does not connect directly with the closed sewerage system, but that discharges into the closed sewerage system through an air break or air gap into a trap, fixture, receptor, or interceptor.
- (17) "Legally responsible party"
- (1) For a residential property, the legally responsible party is the property owner.
 - (2) For a corporation, the legally responsible party is a responsible corporate officer, either:
 - (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or
 - (ii) the manager of operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for approval application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - (3) For a partnership or sole proprietorship, the legally responsible party is either a general partner or the proprietor, respectively.
 - (4) For a municipality, State, Federal, or other public agency, the legally responsible party is a principal executive officer or ranking elected official, either
 - (i) the chief executive officer of the agency, or
-

- (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
- (18) “Limited local graywater control program” is a local graywater control program limited to existing graywater treatment works and which does not accept new graywater treatment works.
- (19) “Local agency” means any local city, city or county, county agency including, but not limited to, a department, local public health agency, or district which is delegated the authority to administer all or a portion of the responsibilities of the local graywater control program.
- (20) “Local graywater control program” is a local ordinance or resolution and, if applicable, rule, including implementation practices, authorized by a city, city and county or county which is in compliance with the minimum requirements of this regulation.
- (21) “Local public health agency” means any county, district, or municipal public health agency and may include a county, district, or municipal board of health.
- (22) “Modification” means the alteration or replacement of any component of a graywater treatment works that can affect the quality of the finished water, the rated capacity of a graywater treatment works, the graywater use, alters the treatment process of a graywater treatment works, or compliance with this regulation and the local graywater control program. This definition does not include normal operations and maintenance of a graywater treatment works.
- (23) “Mulch” means organic material including but not limited to leaves, prunings, straw, pulled weeds, and wood chips.
- (24) “Mulch basin” means a type of irrigation or treatment field filled with mulch or other approved permeable material of sufficient depth, length, and width to prevent ponding or runoff. A mulch basin may include a basin around a tree, a trough along a row of plants, or other shapes necessary for irrigation.
- (25) “On-site wastewater treatment system” or “OWTS” means an absorption system of any size or flow or a system or facility for treating, neutralizing, stabilizing, or dispersing sewage generated in the vicinity, which system is not a part of or connected to a sewage treatment works.
- (26) “Percolation test” means a subsurface soil test at the depth of a proposed irrigation area to determine the water absorption capability of the soil, the results of which are normally expressed as the rate at which one inch of water is absorbed. The rate is expressed in minutes per inch.
- (27) “Potable water system” means a system for the provision of water to the public for human consumption through pipes or other constructed conveyances, where such system has less than fifteen service connections or regularly serves less than an average of at least 25 individuals daily at least 60 days per year.
- (28) “Professional engineer” means an engineer licensed in accordance with section 12-25-1, C.R.S.
- (29) “Public nuisance” means the unreasonable, unwarranted and/or unlawful use of property, which causes inconvenience or damage to others, including to an individual or to the general public.
- (30) “Public water system” means a system for the provision of water to the public for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves an average of at least 25 individuals daily at least 60 days per year. A public water system is either a community water system or a non-community water system. Such term does not include any special irrigation district. Such term includes:

- (a) Any collection, treatment, storage, and distribution facilities under control of the supplier of such system and used primarily in connection with such system.
- (b) Any collection or pretreatment storage facilities not under such control, which are used primarily in connection with such system.
- (31) “Single family” means a detached or attached structure, arranged and designed as a single family residential unit intended to be occupied by not more than one family and that has separate water and sewer services connections from other dwelling units.
- (32) “Site evaluation” means a comprehensive analysis of soil and site conditions for a graywater irrigation area.
- (33) “Soil horizon” means layers in the soil column differentiated by changes in texture, color, redoximorphic features, bedrock, structure, consistence, and any other characteristic that affects water movement.
- (34) “Soil profile test pit” means a trench or other excavation used for access to evaluate the soil horizons for properties influencing effluent movement, bedrock, evidence of seasonal high ground water, and other information to be used in locating and designing a graywater irrigation area.
- (35) “Soil structure” means the naturally occurring combination or arrangement of primary soil particles into secondary units or peds; secondary units are characterized on the basis of shape, size class, and grade (degree of distinctness).
- (36) “Suitable soil” means unsaturated soil in which the movement of water, air, and growth of roots is sustained to support healthy plant life and conserve moisture. Soil criteria for graywater subsurface irrigation are further defined in section 86.12.
- (37) “Subsurface irrigation” means a discharge of graywater into soil a minimum of four inches (4”) and no deeper than twelve inches (12”) below the finished grade.
- (38) “State waters” means any and all surface and subsurface waters which are contained in or flow in or through this state, but does not include waters in sewage systems, waters in treatment works of disposal systems, waters in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed.

Table 8-1 Abbreviations and Acronyms

ANSI	American National Standards Institute
BK	Blocky
C.R.S.	Colorado Revised Statutes
CDPS	Colorado Discharge Permit System
FEMA	Federal Emergency Management Agency
gpd	gallons per day
GR	Granular
mg/L	milligrams per Liter
MPI	Minutes Per Inch
NFIP	National Flood Insurance Program
NSF	NSF International, formally known as National Sanitation Foundation
O&M	Operations and Maintenance
OWTS	On-site Wastewater Treatment System(s)
PR	Prismatic

86.9 Administration

A. Local Coordination

Nothing in this regulation shall be deemed to limit the authority of local cities, cities and counties, or counties, pursuant to section 29-1-203, C.R.S., to enter into intergovernmental agreements with each other pertaining to the coordinated adoption and operation of local graywater control program.

B. Minimum Requirements for a Local Graywater Control Program

1. The local city, city and county, or county that chooses to authorize graywater use within its jurisdiction must adopt an ordinance or resolution which meets the following minimum requirements:
 - a. Require compliance with the minimum requirements of this regulation.
 - b. Require compliance with all applicable federal, state, and local requirements.
 - c. Define the legal boundary of the local city, city and county, or county's local graywater control program. If the area in which graywater systems are allowed by a local control program is smaller than the maximum legal boundary, then the excluded area must be clearly identified.
 - d. Identify the local agency, or agencies, that is responsible for oversight and implementation of all graywater regulatory activities including, but not limited to, design review, inspection, enforcement, tracking, and complaints.
 - e. Identify if a fee(s) will be imposed for graywater activities, and if so, which local agency establishes the fee(s) and where fee(s) information is located.
 - f. Require a searchable tracking mechanism that is indefinitely maintained by the local agency that must include, at a minimum, the following information:
 - i. Legal address of each facility with graywater treatment works, allowed graywater uses at each facility, and a graywater treatment works description;
 - ii. The legally responsible party associated with every graywater treatment works;
 - iii. Where required, the certified operator associated with every graywater treatment works; and
 - iv. Any changes to the legally responsible party, certified operator, and status of the graywater treatment works must be updated within 60 days.
 - g. Require the local agency to administer and enforce the provisions of the ordinance or resolution, and where applicable for certain program elements, the rule.
2. The local city, city and county, or county that chooses to authorize graywater use within its jurisdiction must adopt an ordinance, resolution or rule which meets the following minimum requirements:

- a. Require a local agency to develop a graywater design criteria document, which includes the following:
 - i. Requirements that are at least as stringent as the minimum design requirements in this regulation; and
 - ii. Define a site evaluation protocol for subsurface irrigation systems as defined in section 86.12(B)(1)(i)(i), unless exclusively allowing single family, dispersed subsurface irrigation systems (under Categories A and C) sized with the irrigation area equation protocol as defined in section 86.12(B)(1)(i)(ii).
- b. Identify which graywater use categories as defined in section 86.10 are allowed within the legal boundary of the local graywater control program.
- c. Require a local agency to approve or deny the installation of new graywater treatment works or modifications to an existing graywater treatment works, and as part of the review process the local agency(ies) must consider the design documentation associated with the graywater system, which must include the following information:
 - i. The graywater uses;
 - ii. Location of the graywater treatment system;
 - iii. Design flow calculations for the graywater treatment works;
 - iv. The fixture(s) that are the source(s) of the graywater;
 - v. The design of the plumbing and irrigation system; if applicable
 - vi. A description of the products or components;
 - vii. If applicable, any supporting soil analysis information;
 - viii. If applicable, contact information for system designer or professional engineer and operator;
 - ix. Name and address of the legally responsible party; and
 - x. Must be signed by the legally responsible party.
- d. Require that graywater treatment works be inspected or verified and accepted by the local agency.
- e. Require an operation and maintenance (O&M) manual for all graywater treatment works, and require that the O&M manual:
 - i. Remain with the graywater treatment works throughout the life of the system;
 - ii. Be updated at the time the system is modified; and

- iii. Upon change of ownership or occupancy of the property where the graywater treatment works is located, transfer to the new owner or tenant.
 - f. If reporting to the local city, city and county, county, or local agency is required, identify the reporting requirements, including the required parameters and the required frequency.
- C. Discontinuation of local graywater program

A local city, city and county, and county that decides to revoke or rescind an adopted local graywater control program must require that all previously allowed graywater treatment works either:

1. Be physically removed or permanently disconnected; or
2. Be regulated under a limited graywater control program for existing graywater systems. In this case, the local city, city and county, or county must continue a limited graywater control program for the existing graywater treatment works. The limited graywater program must include a graywater control program for the existing graywater treatment works but no new graywater treatment works. At a minimum, the limited graywater control program must include items: 86.9(B)(1)(a), 86.9(B)(1)(b), 86.9(B)(1)(d), 86.9(B)(1)(f), 86.9(B)(1)(g) and 86.9(B)(2)(e). If the limited graywater control program allows modifications to existing treatment works then items 86.9(B)(2)(a), 86.9(B)(2)(b), and 86.9(B)(2)(c) must also be included; or
3. Be regulated under another jurisdiction's local graywater control program which assumes authority over the existing graywater treatment works. The existing graywater treatment works will need to comply with the new city, city and county, or county's local graywater control program, including any required graywater treatment works modifications.

86.10 Graywater Use Categories

General: The graywater use categories allowed are defined below. A single facility may have multiple graywater treatment works as long as all applicable use and design requirements are satisfied.

A. Category A: Single family, subsurface irrigation

Category A graywater use must meet the following:

1. Allowed users: Single family.
2. Allowed graywater sources: Graywater collected from bathroom and laundry room sinks, bathtubs, showers, and laundry machines.
3. Allowed uses: Outdoor, subsurface irrigation within the confines of the legal property boundary.
4. Design flow: The design flow for a single family graywater treatment works is limited to a 400 gallons per day (gpd) or less combined flow for all approved uses.

B. Category B: Non-single family, subsurface irrigation, 2,000 gallons per day (gpd) or less

Category B graywater use must meet the following:

1. Allowed users: Non-single family users.
2. Allowed graywater sources: Graywater collected from bathroom and laundry room sinks, bathtubs, showers, and laundry machines.
3. Allowed uses: Outdoor, subsurface irrigation within the confines of the legal property boundary.
4. Design flow: The design flow for a non-single family graywater treatment works is limited to 2,000 gallons per day (gpd) or less for outdoor irrigation for the entire facility.

C. Category C: Single family, indoor toilet and urinal flushing, subsurface irrigation

Category C graywater use must meet the following:

1. Allowed users: Single family.
2. Allowed graywater sources: Graywater collected from bathroom and laundry room sinks, bathtubs, showers, and laundry machines.
3. Allowed uses: Indoor toilet and urinal flushing and outdoor, subsurface irrigation within the confines of the legal property boundary.
4. Design flow: The design flow for a single family graywater treatment works is limited to 400 gallons per day (gpd) or less combined flow for all approved uses.

D. Category D: Non-single family, indoor toilet and urinal flushing, subsurface irrigation

Category D graywater use must meet the following:

1. Allowed users: Non-single family users.
2. Allowed graywater sources: Graywater collected from bathroom and laundry room sinks, bathtubs, showers, and laundry machines.
3. Allowed uses: Indoor toilet and urinal flushing and outdoor, subsurface irrigation within the confines of the legal property boundary.
4. Design flow: There is no maximum design flow for a non-single family graywater treatment works for indoor toilet and urinal flushing. There is no maximum design flow for the amount of wastewater from the facility that can go to a closed sewerage system. The design flow is limited to 2,000 gallons per day (gpd) or less for outdoor irrigation for the entire facility.

86.11 Graywater Treatment Works – Flow Projections

A. Flow projections for all graywater treatment works

1. Graywater treatment works must be sized appropriately using the following flow projection methods:
 - a. Residential users: Flow to graywater treatment works must be calculated on the occupancy and the fixtures connected to the graywater treatment works. The calculated graywater flow is the number of occupants multiplied by the estimate graywater flow in terms of gpd/occupant from the attached fixtures.

- i. The occupancy must be calculated based on a minimum of two (2) occupants for the first bedroom and one (1) occupant for each additional bedroom.
- ii. The estimated graywater flow from each fixture is based on the design flow of the fixture or if the fixture's design flow is unknown then the estimated graywater flow per occupant is with based on the following gallons per day per occupant.
 - (a) Traditional fixtures: 25 gpd/occupant for each shower, bathtub, and wash basin and 15 gpd/occupant for each clothes washer.
 - (b) Water saving fixtures: 20 gpd/occupant for each shower, bathtub, and wash basin and 8 gpd/occupant for each clothes washer.
- b. Non-residential users: Graywater treatment works must be sized in accordance with fixture or water use records taking into account the number of fixtures attached to the graywater treatment works.

86.12 Graywater Treatment Works - Design Criteria

A. Design criteria for all graywater treatment works

The following minimum design criteria are required for all graywater treatment works. All graywater treatment works must:

1. Meet all design requirements of this regulation and meet any additional design requirements of the Colorado Plumbing Code.
2. Each treatment component or combination of multiple components must have a design flow greater than the calculated peak graywater production, if upstream of the storage tank or if no tank is present.
3. Include a diversion valve that directs graywater to either the graywater treatment works or a closed sewerage system. The diversion valve must be:
 - a. Easily operable;
 - b. Clearly labeled;
 - c. Constructed of material that is durable, corrosion resistant, watertight;
 - d. Designed to accommodate the inlet and outlet pipes in a secure and watertight manner; and
 - e. Indirectly connect the bypass line to the closed sewerage system.
4. Not have any piping that allows the treatment process(es) or a storage tank to be bypassed prior to graywater use.
5. Include a tank to collect and store graywater, except for a subsurface irrigation system that discharges to a mulch basin. The storage tank must:

-
- a. Be constructed of durable, non-absorbent, water-tight, and corrosion resistant materials;
 - b. Be closed and have access openings for inspection and cleaning;
 - c. Be vented:
 - i. for indoor tanks: the tanks must be vented to the atmosphere outside of the house;
 - ii. for outdoor tanks: the storage tank must have a downturned screened vent;
 - d. Have an overflow line:
 - i. with the same or larger diameter line as the influent line;
 - ii. without a shut off valve;
 - iii. that is trapped to prevent the escape of gas vapors from the tank; and
 - iv. that is indirectly connected to the closed sewerage system;
 - e. Have a valved drain line with the same or larger diameter line as the influent line that is indirectly connected to the closed sewerage system;
 - f. Be a minimum of 50 gallons;
 - g. Be placed on a stable foundation;
 - h. If located outdoors, not be exposed to direct sunlight; and
 - i. Have a permanent label that states "CAUTION! NON-POTABLE WATER. DO NOT DRINK."
6. For indoor toilet or urinal flushing systems (Categories C and D) graywater treatment works must have a backup potable water system connection. For subsurface irrigation systems (Categories A and B) graywater treatment works may, but are not required to, have a backup potable water system that provides potable irrigation water when graywater is not being produced or is produced in insufficient quantities. A backup potable water system connection must meet the following requirements:
- a. For non-public water system, potable water system connections: uncontrolled cross connections between a potable water system and a graywater treatment works are prohibited. All cross connections must be protected by a reduced pressure principle backflow prevention zone assembly or an approved air gap.
 - b. For public water system, potable water system connections: uncontrolled cross connections between a public water system and a graywater treatment works are prohibited. The graywater treatment works design must protect the public water system from cross connections by meeting the requirements of Regulation #11: Colorado Primary Drinking Water Regulations.
7. Not be used as a factor to reduce the design, capacity or soil treatment area requirements for OWTS or domestic wastewater treatment works.

8. Have any wastewater from graywater treatment works (e.g., filter backwash water) be properly contained and disposed into a closed sewerage system or an approved Underground Injection Control (UIC) well.
 9. Have all graywater piping clearly distinguished and must be clearly labeled, including pipe identification and flow arrows.
 10. If located in a 100-year floodplain area, meet or exceed the requirements of FEMA and the local emergency agency. The graywater system must be designed to minimize or eliminate infiltration of floodwaters into the system and prevent discharge from the system into the floodwaters.
 11. Not be located in floodways.
 12. Be located within the confines of the legal property boundary and not within an easement;
- B. Design criteria for subsurface irrigation systems
1. All subsurface irrigation systems:

The following minimum design criteria are required for all graywater treatment works being used for subsurface irrigation. All subsurface graywater irrigation systems must:
 - a. Have the subsurface irrigation components of the graywater irrigation system installed a minimum of four inches (4") and a maximum of twelve inches (12") below the finished grade.
 - b. Have the subsurface irrigation components of the graywater irrigation system installed in suitable soil, as defined in section 86.8(36).
 - c. Have a minimum of twenty-four inches (24") of suitable soil between the subsurface irrigation components of the graywater irrigation system and any restrictive soil layer, bedrock, concrete, or the highest water table. Restrictive soil layers are soil types 4, 4A, and 5 in Table 12-2.
 - d. Include controls, such as valves, switches, timers, and other controllers, as appropriate, to ensure the distribution of graywater throughout the entire irrigation zone.
 - e. If utilizing emitters, the emitters be designed to resist root intrusion and be of a design recommended by the manufacturer for the intended graywater flow and use. Minimum spacing between emitters shall be sufficient to deliver graywater at an agronomic rate and to prevent surfacing or runoff.
 - f. Have all irrigation supply lines be polyethylene tubing or PVC Class 200 pipe or better and Schedule 40 fittings. All joints shall be pressure tested at 40 psi (276 kPa), and shown to be drip tight for five minutes before burial. Drip feeder lines can be poly or flexible PVC tubing.
 - g. Meet the following setback distances in Table 12-1.

Table 12-1: Graywater System Setback Requirements

Minimum Horizontal Distance Required from:	Graywater Storage Tank	Irrigation Field
Buildings	5 feet	2 feet
Property line adjoining private property	10 feet	10 feet
Property line adjoining private property with supporting property line survey	1.5 feet	1.5 feet
Water supply wells	50 feet	100 feet
Streams and lakes	50 feet	50 feet
Seepage pits or cesspools	5 feet	5 feet
OWTS disposal field	5 feet	25 feet
OWTS tank	5 feet	10 feet
Domestic potable water service line	10 feet	10 feet
Public water main	10 feet	10 feet

h. The irrigation field must be located on slopes of less than thirty percent (30%) from horizontal.

i. Protocols for determining the size of the subsurface irrigation area:

The irrigation area must be determined using one of the following protocols.

i) Site evaluation protocol: The following site evaluation must be conducted to determine the appropriate size of the irrigation area for all subsurface irrigation systems, except single family dispersed subsurface irrigation systems (Category A and C dispersed subsurface irrigation systems) that are sized using the irrigation area equation protocol as defined in section 86.12(B)(1)(i)(ii).

The site evaluation must include:

(a) Site information, including:

- (1) a site map; and
- (2) location of proposed graywater irrigation area in relation to physical features requiring setbacks in Table 12-1.

(b) Soil investigation to determine long-term acceptance rate of a graywater irrigation area as a design basis. Soil investigation must be completed by either:

- (1) a visual and tactile evaluation of soil profile test pit, or
- (2) a percolation test.

(c) Irrigation rates must not exceed maximum allowable soil loading rates in Table 12-2 based on the finest textured soil in the twenty-four inches (24") of suitable soil beneath the subsurface irrigation components.

Table 12-2: Soil Type Description and Maximum Hydraulic Loading Rate

Soil Type	USDA Soil Texture	USDA Structure – Shape	USDA Soil Structure-Grade	Percolation Rate (MPI)	Loading Rate for Graywater (gal./sq. ft./day)
0	Soil Type 1 with more than 35% Rock (>2mm); Soil Types 2-5 with more than 50% Rock (>2mm)	--	0 (Single Grain)	Less than 5	Not suitable without augmentation 1.0 with augmentation
1	Sand, Loamy Sand	--	0	5-15	Not suitable without augmentation 1.0 with augmentation
2	Sandy Loam, Loam, Silt Loam	PR BK GR	2 (Moderate) 3 (Strong)	16-25	0.8
2A	Sandy Loam, Loam, Silt Loam	PR, BK, GR 0 (none)	1 (Weak) Massive	26-40	0.6
3	Sandy Clay Loam, Clay Loam, Silty Clay Loam	PR, BK, GR	2, 3	41-60	0.4
3A	Sandy Clay Loam, Clay Loam, Silty Clay Loam	PR, BK, GR 0	1 Massive	61-75	0.2
4	Sandy Clay, Clay, Silty Clay	PR, BK, GR	2, 3	76-90	Not suitable
4A	Sandy Clay, Clay, Silty Clay	PR, BK, GR 0	1 Massive	91-120	Not suitable
5	Soil Types 2-4A	Platy	1, 2, 3	121+	Not suitable

- (d) Suitable soil may consist of original, undisturbed soil or original soil that is augmented. Not suitable soil may be augmented as needed to ensure suitable soil is used.
- (e) If the original soil is augmented, the mixture used for augmentation must meet the following criteria to ensure that suitable soil is achieved:
- (1) The mixture must have an organic content that is at least five percent (5%) and no greater than ten percent (10%);
 - (2) The mixture must be a well blended mix of mineral aggregate (soil) and compost where the soil ratio depends on the requirements for the plant species; and
 - (3) The mineral aggregate must have the following gradation:

Sieve Size	Percent Passing
3/8	100
No. 4	95 - 100
No. 10	75 - 90
No. 40	25 - 40
No. 100	4 - 10
No. 200	2 - 5

- (f) If the original soil is augmented, the additional soil must be tilled into the native soil a minimum of six inches (6") below irrigation application zone.
- (g) Soil types 0 and 1 must be augmented before use. Soil type 4, 4A, and 5 are not suitable for subsurface irrigation.
- ii) Irrigation area equation protocol: The following irrigation area equation protocol may be used to determine the appropriate size of the irrigation area for single family, dispersed subsurface irrigation systems (Categories A and C dispersed subsurface irrigation systems).

This protocol cannot be used to size mulch basins.

$$LA = GW / (CF \times ET \times PF)$$

Where:

LA = Landscaped area (square feet);

GW = Estimated graywater flow (gallons per week);

CF = 0.62 (square foot x inch / gallon) = ((7.48 gallons/ 1-cu-ft) / 12 inch/ft);

ET = Evapotranspiration rate (inch / week), as determined by USDA Natural Resources Conservation Service CO652.0408 "Figure CO4-1: Map of Colorado Climate Zones" dated April 1978, or weekly averages based on actual conditions;

PF = Plant factor, 0.5

2. Mulch basin irrigation system requirements

The following minimum design criteria are required for graywater treatment works using mulch basin systems for subsurface irrigation:

- a. Mulch shall be permeable enough to allow rapid infiltration of graywater.
- b. The minimum void space mulch basin volume must be either:

- i. Three (3) times the anticipated average daily flow for graywater treatment works without a storage tank to allow for graywater volume surges and to prevent surfacing or runoff.
 - ii. One and a half (1.5) times the anticipated average daily flow for graywater treatment works with storage tank meeting the section 86.11(Ag)(5) design criteria.
 - c. Piping to mulch basins must discharge a minimum of four inches (4") below grade into a container for dispersal of graywater into the mulch basin. The container must be designed to have four inches (4") of freefall between the invert of the discharge pipe and the mulch. The container must have an access lid for observation of flow and to check mulch levels.
 - d. The mulch basin must have a minimum depth of twelve inches (12") below grade and not more than twenty four (24") below grade.
 - e. A filter is not required.
3. Dispersed subsurface irrigation system requirements

The following minimum design criteria are required for graywater treatment works using dispersed irrigation systems for subsurface irrigation:

- a. Include a cartridge filter, which must meet the following requirements:
 - i. A minimum of 60 mesh;
 - ii. Located between the storage tank and the irrigation system;
 - iii. If a pump is being used to pressurize the graywater distribution system, the filter must be located after the pump.

C. Design criteria for indoor toilet and urinal flushing graywater treatment works (Categories C and D)

1. Category C: single family, indoor toilet and urinal flushing graywater treatment works

The following minimum design criteria are required for graywater treatment works for Category C: single family, indoor toilet and urinal flushing:

- a. The graywater treatment works must be certified under "Class R" of NSF/ANSI 350 Onsite Residential and Commercial Water Reuse Treatment Systems.
- b. If a disinfection process is not part of NSF/ANSI 350-2011 equipment, separate disinfection system equipment is required. For graywater treatment works that use sodium hypochlorite (bleach), the graywater treatment works must be capable of providing a free chlorine residual of 0.2 to 4.0 mg/L in the graywater throughout the indoor graywater plumbing system.
- c. The graywater treatment works must include a dye injection system that is capable of providing a dye concentration that is visibly distinct from potable water.

- d. For Category C indoor toilet and urinal flushing graywater treatment works that are also capable of using graywater for subsurface irrigation, the system may be designed to allow graywater to be diverted to the subsurface irrigation graywater treatment works prior to the disinfection and dye process, however after the point of diversion the subsurface irrigation portion of the system must meet the requirements in section 86.12(B).
2. Category D: non-single family, indoor toilet and urinal flushing graywater treatment works

The following minimum design criteria are required for Category D: non-single family, indoor toilet and urinal flushing:
 - a. The graywater treatment works must be certified under “Class R” or “Class C” of NSF/ANSI 350 Onsite Residential and Commercial Water Reuse Treatment Systems. Required classification shall be dictated by the size of the graywater treatment works and if the graywater sources are residential or commercial as defined by NSF/ANSI 350.
 - b. Separate disinfection system equipment is required if a disinfection process is not part of NSF/ANSI 350-2011 equipment. A graywater treatment works must be capable of providing a free chlorine residual of 0.2 to 4.0 mg/L in the graywater throughout the indoor graywater plumbing system.
 - c. The graywater treatment works must include a dye injection system that is capable of providing a dye concentration that is visibly distinct from potable water.
 - d. For Category D indoor toilet and urinal flushing graywater treatment works that are also capable of using graywater for subsurface irrigation, the system may be designed to allow graywater to be diverted to the subsurface irrigation graywater treatment works prior to the disinfection and dye process, however after the point of diversion the subsurface irrigation portion of the system must meet the requirements in section 86.12(B).
 - e. For graywater treatment works that have a capacity to receive greater than 2,000 gallons per day, the design must be prepared under the supervision of and submitted with the seal and signature of a professional engineer licensed to practice engineering in the State of Colorado in accordance with the requirements of the Colorado Department of Regulatory Agencies (DORA) – Division of Registrations.
- D. Signage requirements for non-single family graywater treatment works (Categories B and D)
1. All required notifications shall include posting of signs of sufficient size to be clearly read with the language below in the dominant language(s) expected to be spoken at the site.
 2. All non-single family graywater treatment works (Categories B and D)

All non-single graywater treatment works must comply with the following signage requirements.
 - a. A permanent warning sign must be visible at all fixtures from which graywater is collected. The signs must state that, “WATER FROM THIS FIXTURE IS REUSED. CHEMICALS, EXCRETA, PETROLEUM OILS AND HAZARDOUS MATERIALS MUST NOT BE DISPOSED DOWN THE DRAIN”;

- b. Each room that contains graywater treatment works components must have a sign that says "CAUTION GRAYWATER TREATMENT WORKS, DO NOT DRINK, DO NOT CONNECT TO THE POTABLE DRINKING WATER SYSTEM. NOTICE: CONTACT BUILDING MANAGEMENT BEFORE PERFORMING ANY WORK ON THIS WATER SYSTEM."; and
3. Non-single family, subsurface irrigation non-single family graywater treatment works (Categories B and D)

Non-single family, subsurface irrigation graywater treatment works (Categories B and D, if applicable) must comply with the following signage requirement:
 - a. Each irrigation area must have a sign that says "CAUTION GRAYWATER BEING USED FOR IRRIGATION. DO NOT DRINK, DO NOT CONNECT TO THE POTABLE DRINKING WATER SYSTEM."
4. Non-single family, indoor toilet or urinal flushing, non-single family graywater treatment works (Category D)

Non-single family, indoor toilet and urinal flushing graywater treatment works (Category D) must comply with the following signage requirement:
 - a. Each toilet and urinal must have a sign that says: "TO CONSERVE WATER, THIS BUILDING USES TREATED NON-POTABLE GRAYWATER TO FLUSH TOILETS AND URINALS."

86.13 Operation and Maintenance Manual

All graywater systems must have an O&M manual. The O&M manual must include the following items:

- A. A graywater treatment works description including: equipment list, design basis data including but not limited to, design volumes, design flow rates of each component and service area, system as-built drawing, and process description.
- B. Maintenance information for the graywater treatment works including but not limited to: component maintenance schedule, instructions for component repair, replacement, or cleaning, replacement component source list, testing and frequency for potable containment device, and instructions for periodic removal of residuals.
- C. Operational ranges for parameters including but not limited to: disinfectant concentration levels, filter replacement parameters, pressure ranges, tank level, and valve status under normal operation.
- D. Step-by-step instructions for starting and shutting down the graywater treatment works including but not limited to: valve operation, any electrical connections, cleaning procedures, visual inspection, and filter installation.
- E. A guide for visually evaluating the graywater treatment works and narrowing any problem scope based on alarm activations, effluent characteristics, system operation, and history.
- F. A list of graywater control measures in which the graywater treatment works must be operated.

86.14 Graywater Use Requirements - Control Measures

- A. Control measures are operational requirements representing best management practices that graywater systems must follow when operating a graywater treatment works.
- B. Control measures that apply to all graywater uses

All graywater treatment works must be operated in accordance with the following control measures:

- 1. Graywater must be collected in a manner that minimizes the presence or introduction of:
 - a. hazardous or toxic chemicals in the graywater to the greatest extent possible;
 - b. human excreta in the graywater to the greatest extent possible;
 - c. household wastes; and
 - d. animal or vegetable matter.
 - 2. Use of graywater is limited to the confines of the facility that generates the graywater.
 - 3. The graywater treatment works must be operated and maintained in accordance with the O&M manual, including all manufacturer recommended maintenance activities. The O&M manual must remain with the graywater treatment works throughout the system's life and be updated based on each modification and approval made to the system. The O&M manual must be transferred, upon change of ownership or occupancy, to the new owner or tenant.
 - a. For Category D graywater treatment works that have a capacity to receive greater than 2,000 gallons per day (gpd), operational and maintenance records must be maintained for a minimum of the past five (5) years.
 - 4. The owner or operator of a graywater treatment works must minimize exposure of graywater to humans and domestic pets.
 - 5. Graywater use and graywater treatment works must not create a public nuisance.
 - 6. Graywater must not be stored for more than 24 hours unless the graywater has been treated by a graywater treatment works that meets the design requirements of section 86.12. All graywater must be stored inside a tank(s) that meets the design requirements of section 86.12(A)(5).
 - 7. Temporary or semi-temporary connections from the potable water system or public water system to the graywater treatment works are prohibited. Permanent connections from the potable water system or public water system to the graywater treatment works must meet the design requirements of 86.11(A)(6).
- C. Control measures that apply to subsurface irrigation graywater use

Subsurface irrigation graywater treatment works must be operated in accordance with the following additional control measures:

- 1. Agricultural irrigation with graywater is prohibited.

2. Irrigation is prohibited when the ground is frozen, plants are dormant, during rainfall events, or the ground is saturated.
3. Irrigation scheduling must be adjusted so that application rates are closely matched with soil and weather conditions.
4. Graywater must be applied in a manner that does not result in ponding, runoff, or unauthorized discharge to state waters. For dispersed subsurface irrigation systems, the graywater must be applied at an agronomic rate. For mulch basins systems, the graywater must not be applied in excess of the soil adsorption rate.
5. For mulch basin systems, mulch must be replenished and undergo periodic maintenance as needed to reshape or remove material to maintain surge capacity and to prevent ponding and runoff.

D. Control measures that apply to indoor toilet and urinal flushing graywater use

Indoor toilet and urinal flushing graywater treatment works (Categories C and D) must be operated in accordance with the following additional control measures.

1. Graywater for toilet and urinal flushing use must be disinfected.
 - a. Graywater treatment works that utilize chlorine for disinfection must have a minimum of 0.2 mg/L and a maximum of 4.0 mg/L of free chlorine residual throughout the indoor graywater plumbing system, including fixtures.
 - b. Single family graywater treatment works that utilize non-chemical methods, such as UV, for disinfection must have a chlorine puck present in each toilet or urinal tank.
2. Graywater for toilet and urinal flushing must be dyed with either blue or green food grade vegetable dye and be visibly distinct from potable water.

86.15 Certified Operator

A graywater treatment works must be operated by qualified personnel who meet any applicable requirements of Regulation #100, the Water and Wastewater Facility Operators Certification Requirements.

86.16 - 86.20 Reserved

86.21 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY, AND PURPOSE; APRIL 13, 2015 RULEMAKING, FINAL ACTION MAY 11, 2015, EFFECTIVE JUNE 30, 2015

The provisions of sections 25-8-202(1)(c) and 25-8-205(1)(g), C.R.S., provide the specific statutory authority for the Graywater Control Regulation adopted by the Water Quality Control Commission (commission). The commission has also adopted, in compliance with section 24-4-203(4), C.R.S., the following statement of basis, specific statutory authority, and purpose.

BASIS AND PURPOSE

I. Purpose

The commission has determined that the adoption of the requirements set forth in Regulation #86 are necessary to protect public health and the environment in the state. The commission believes that the implementation of graywater use in Colorado will proceed more expeditiously by limiting the initial regulatory scope. This approach promotes development of local graywater programs through two initial graywater uses with specific treatment and control measure requirements. The commission expects the adoption of modifications to Regulation #86 over time to allow for additional graywater uses, graywater users, and expanded treatment options. The commission anticipates future reviews of this regulation to include a review for improved organization and readability, and also anticipates that the next review will consider whether to allow agricultural irrigation as a use, and whether to adopt variance provisions.

It is the intent of the commission that this regulation promote the use of graywater by providing a comprehensive framework which, when followed, will assure responsible use of graywater compatible with the state's public policy to foster the health, welfare and safety of the inhabitants of the state of Colorado and to protect, maintain, and improve, where necessary and reasonable, the water quality in Colorado.

II. House Bill 13-1044 Background

House Bill 13-1044 was signed into law on May 15, 2013, and authorizes the use of graywater in Colorado. The legislation defined "graywater" and "graywater treatment works" and established a basic implementation framework for graywater use within Colorado.

Under the statute, each local city, city and county, or county are able to decide whether to allow graywater use within its jurisdiction via the adoption of a resolution or ordinance that meets minimum local, state and federal requirements, including but not limited to the Colorado Plumbing Board regulations, local graywater control programs, water rights requirements, and operator certification requirements. All graywater users must wait until all relevant regulations are effective before implementing graywater treatment works.

III. Regulatory Goals

Through adoption of this regulation, the commission is encouraging the use of graywater. Because graywater has the potential to be a human pathogen pathway, the commission is adopting measures to adequately protect public health. The graywater regulation is structured so that local governments will have flexibility to adopt ordinances, resolutions, and rules that are appropriate in each individual circumstance. Local graywater control programs are voluntary, and may allow one or both of the authorized graywater uses. The local graywater control program may be more stringent but must meet the minimum requirements of Regulation #86. Since neither the local implementing agencies nor the state agencies were allocated funds for graywater regulation, ordinance, code, resolution, and other supporting graywater control legal framework, the regulation aims to be cognizant of resource limitations linked to local implementation. At this time, the commission is authorizing two graywater uses – indoor toilet flushing and outdoor subsurface irrigation. The commission anticipates that the allowed graywater uses may be expanded in the future after Colorado gains some experience and further scientifically based research can define the risks and benefits.

IV. Applicability

The statute states that, "graywater may only be used in areas where the local city, city and county, or county has adopted an ordinance or resolution approving the use of graywater", and ordinances and resolutions must be "in compliance" with the commission's regulation and other federal, state, and local. §§ 25-8-205(1)(g)(II), 31-11-107(1) and 31-15-601(1)(m), C.R.S.

The Commission declined to grandfather preexisting graywater systems. All graywater systems in Colorado must meet the requirements of this regulation.

There are some on-site waste water treatment systems (“OWTS”) that, in addition to disposal, use some of the water generated from these systems for subsurface irrigation. The purpose of these systems is sewage disposal. These systems were approved prior to May 15, 2013, pursuant to *Regulation #43: On-Site Wastewater Treatment System Regulation* (“OWTS”) (5 CCR 1002-43.4(J) or *Individual Sewage Disposal System Guidelines* (“ISDS”) (5 CCR 1003-6.IV.J) which allows a local public health agency to approve “experimental” OWTS or ISDS systems. The record indicated there are a small number of these systems, less than 10. The Commission adopted section 86.6(A)(2) to address these systems. These systems will continue to operate under Regulation No. 43 and will be deemed in compliance with this regulation unless and until modifications are made, at which time the system will need to evaluate its system and to the extent applicable must come into compliance with requirements of this regulation.

A local city, city and county or county that adopts a graywater ordinance or resolution must include the ability to compel graywater users to discontinue the practice in the event the program is discontinued. Where a local jurisdiction adopts a local graywater program, and later decides to discontinue the local graywater control program, the local government may either fully discontinue the program or adopt a limited graywater control program to allow existing graywater systems to continue. The “limited graywater control program” option means that the previously adopted local control program (including all Regulation #86 requirements) can be limited to the existing graywater treatment works and that no additional applications for graywater systems will be accepted.

V. Enforcement and Division Oversight

The statute conveys exclusive enforcement authority regarding compliance with the local ordinance or resolution to the local jurisdiction. The commission does not intend to directly enforce on individual users or graywater treatment works that are located within a local graywater control program. In cases where there is no local graywater control program in place, graywater use within the local jurisdiction will not be authorized and the user (not the local agency) may face enforcement action from the Water Quality Control Division (division).

A local city, city and county, or county that chooses to adopt a local graywater control program must notify the Division within 60 days of adoption and provide a copy of the ordinance, or resolution and, if applicable, rule. The division may review the ordinance or resolution to ensure that the ordinance or resolution meets the minimum intent of Regulation #86, and may take action to compel any local graywater program to conform to the minimum requirements of the regulation.

VI. Definitions

The commission relied upon existing regulatory definitions where possible and adopted definitions for several terms not already defined in statute. The definitions of the terms “cross-connection” and “public water system” were taken from Regulation #11: Colorado Primary Drinking Water Regulations. The definitions of the terms “component”, “design”, “design flow”, “floodplain”, “floodway”, “local public health agency”, “on-site wastewater treatment system”, “percolation test”, “site evaluation”, “soil horizon”, “soil profile test pit”, and “soil structure” were taken or modified from Regulation #43: On-site Wastewater Treatment System Regulation. The definitions of the terms “agronomic rate”, “agricultural irrigation”, and “Division” were taken or modified from Regulation #84: Reclaimed Water Control Regulation. The definition for “indirect connection” was modified from the International Plumbing Code 2012 edition definition of an “indirect waste pipe”. The definitions of the terms “suitable soil” and “subsurface irrigation” were modified from Washington Administrative Code Chapter 246-274.

The commission created definitions for “closed sewerage system”, “facility”, “legally responsible party”, “local agency”, “local graywater control program”, “modification”, “public nuisance”, and “single family”.

VII. Administration

In section 86.9 of the regulation, the commission set mandatory minimum requirements for a resolution or ordinance and, if applicable, rule as adopted by a local agency. The minimum requirements are intended to ensure that the local graywater control program meets the statutory requirements and to ensure a comprehensive graywater program. Based on stakeholder feedback, the regulation allows some administration elements to be authorized in rule, rather than in ordinance or resolution. The minimum requirements are meant to be flexible recognizing that many local agencies will incorporate graywater into existing business processes. A local agency may adopt more stringent standards in its ordinance, resolution, or rule.

A local government may only authorize graywater use in accordance with federal, state, and local requirements. The city, city and county, or county is ultimately responsible for legal compliance with its own ordinance or resolution. Before a local city, city and county, or county adopts an ordinance or resolution to authorize the use of graywater, a board of county commissioners or a municipal governing body is encouraged to coordinate with other local agencies, including but not limited to, the local board of health, local public health agencies, any water and wastewater service providers, and basin water quality authorities. Coordination with other local agencies may be accomplished through memorandums of agreement, memorandums of understanding, agency referral mechanism, or agency agreements. The commission anticipates there may be circumstances where one regulatory entity's rules and regulations could impact the legality of graywater use in a portion of an overall jurisdiction. For example, if a county allows graywater use but a portion of the county is served by a public water system that does not have appropriate water rights to allow graywater uses, this portion of the county must be excluded from the local graywater control program.

The ordinance, resolution, or rule must clearly state the requirements for graywater use within the jurisdiction. The local graywater control program must outline: the allowed graywater category(ies), the graywater treatment design criteria, site and soil evaluation methodology (if applicable), any regulatory fees, any testing requirements, or specific local requirements. The regulation does not require that an ordinance impose fees or water quality reporting.

A local agency's graywater program must include a tracking mechanism for all graywater treatment works, a regulatory approval process, and mechanisms to ensure that on-going graywater use is done in compliance with the requirements of the resolution, ordinance, or rule (e.g., control measures are being met). The commission concludes that a local graywater program must address all graywater treatment works within a jurisdiction, including single family users. Current information on the installed graywater treatment works will be useful in the event of an outbreak investigation and during property transfers. Information regarding the legally responsible party associated with every graywater treatment works will also allow the local jurisdiction to have a contact for the decision maker of each graywater treatment works.

The commission determined that the ordinance or resolution must define the local regulatory structure to implement the program to ensure compliance with the resolution or ordinance. The ordinance or resolution must clearly state which agency(ies) are involved in a local graywater control program and each agency's roles and responsibilities. These requirements are meant to encourage coordination within and between agencies.

Since the local jurisdiction will have enforcement authority, the local graywater control program must include violation notification mechanisms and escalation or enforcement actions. Possible violations of the ordinance or resolution that cause enforcement actions include, but are not limited to: not testing backflow prevention devices as required, not complying with control measures, and installation of a new or modification of an existing system without going through an approval process.

The local jurisdiction will be responsible for coordinating with the Water and Wastewater Facility Operator Board to ensure that any Regulation #100: Water and Wastewater Facility Operator Certification Requirements are being satisfied. The commission encourages local jurisdictions to incorporate a mechanism for operator compliance assurance and a referral mechanism to the Water and Wastewater Facility Operator Board.

VIII. Graywater Categories

The commission is authorizing two uses for graywater - subsurface irrigation and indoor toilet /urinal flushing. There were several factors that guided the commission in determining the graywater categories within the two allowed graywater uses, including the population exposed, potential health exposure, potential cross-connection control risk, and environmental risk. The commission established a major category distinction between a single family residential user and all other users (referred to in the regulation as non-single family). The commission anticipates that a single family user will be financially and personally vested in keeping the household graywater treatment works operating properly. Single family residents will likely be aware of the health status of the other residents in their immediate household. In contrast, non-single family users may not be as diligent in following graywater control measures, may not understand the implications to other graywater users, or may not be responsible for maintaining a graywater treatment works. Accordingly, four graywater use categories were created to address single family and non-single family graywater use for subsurface irrigation (Categories A and B) and indoor toilet and urinal flushing (Categories C and D).

Within the four graywater categories, the commission is adopting daily graywater flow restrictions to ensure that graywater treatment works are consistent with other commission regulations. The commission decided to define a daily graywater flow rate rather than use the building occupancy for a variety of reasons. A daily flow rate is more consistent with the plumbing code, and is more consistent with other commission regulations. Based on a joint American Water Works Association Research Foundation (AwwaRF) and American Water Works Association (AWWA) study titled the Residential End Uses of Water, approximately 30 to 35 gallons per day (gpd) of graywater is produced per person and approximately 18.5 gpd/person is used for toilet flushing. The commission decided on a flow limit of 400 gpd for single family users which is roughly the amount of graywater produced by 10 people and the amount that 22 people could use for indoor toilet flushing. The non-single family limit of 2,000 gpd is roughly the amount of graywater produced by 50 people and the amount that 108 people could use for indoor toilet flushing.

Graywater is expected to contain nitrogen, phosphorus, and total dissolved solids which are regulated pollutants for groundwater discharges under Regulation #41 (5 CCR 1002-41). The commission determined that the potential risks to groundwater from graywater systems are similar to the risk posed by decentralized onsite wastewater treatment systems. Therefore, at the same time as adopting this control regulation, the commission revised Regulation #61 (section 61.14(1)(b)) to exempt graywater treatment works from the requirement to obtain a discharge permit.

IX. Control Measures

In addition to design requirements, the commission is adopting control measures, which are the required routine actions for graywater treatment works. The control measures compliment the design criteria. The control measures attempt to control potential graywater exposure through: limitation of graywater contamination at the point of production (e.g., sink), proper operation of the treatment process, and limitation of graywater exposure (e.g., toilet or irrigation system). For example, the design criteria for indoor toilet flushing use requires the installation of a dye injection system and the associated control measure is the daily operation of the dye injection system. The control measures are the critical barrier to protect public health and environment after installation of the graywater treatment works. The adopted control measures were developed after reviewing other states' graywater programs and the International Plumbing Code requirements. Some control measures are required for all graywater uses, while other control measures are only required for subsurface irrigation or indoor toilet flushing.

A. Control measures required for all graywater uses

- Graywater must be collected in a manner that minimizes the presence or introduction of hazardous or toxic chemicals to the greatest extent possible. Residual hazardous or toxic chemicals may result from activities including, but not limited to: the use of cleaning chemicals; the use of hazardous household products; waste from a water softener; cleaning car parts; washing greasy or oily rags or clothing; rinsing paint brushes; disposal of pesticides, herbicides, or other chemicals; disposing of waste solutions from home photo labs or similar hobbyist or home occupation activities; or from other home maintenance activities.
- *Graywater must be collected in a manner that minimizes the presence or introduction of human excreta to the greatest extent possible.* Human excreta may result from activities such as, but not limited to: washing diapers, washing soiled garments, and washing infectious garments.
- *Graywater must be collected in a manner that minimizes the presence or introduction of household wastes.* Residual household wastes may result from activities including, but not limited to: the use of cleaning chemicals; pharmaceuticals, or from home maintenance activities.
- *Graywater must be collected in a manner that minimizes the presence or introduction of animal or vegetable matter.* Animal or vegetable matter may result from activities such as but not limited to: cooking, cleaning, and washing pets
- *Use of graywater is limited to the confines of the facility that generates the graywater.* This control measure is a statutory requirement.
- *The graywater treatment works must be operated and maintained in accordance with the O&M manual, including all manufacturer recommended maintenance activities.* On the surface this control measure is similar to the administration section which requires each graywater treatment works to have an O&M manual. However, this control measure requires that the O&M manual be actively followed and be used to guide proper operation and maintenance of a graywater treatment works. The commission included a five (5) year minimum O&M recordkeeping requirement for Category D graywater treatment works that have a capacity to receive equal to or greater than 2,000 gallons per day since maintenance of these systems will be essential to protect public health. In the event of an outbreak, having records will allow public health officials to have a baseline of operational information to ensure that the graywater treatment works was properly operated.
- *The owner or operator of a graywater treatment works must minimize exposure of graywater to humans and domestic pets.* Research indicates that graywater is to be expected to contain human pathogens. Therefore, the commission considers minimization of exposure to humans and pets as a common sense measure to limit possible pathogen pathways. The commission understands that some exposures will be necessary for graywater treatment works maintenance, cleaning, aerosolization when flushing of urinals and toilets, and irrigation system maintenance. Users should be aware that human pathogens are likely present, and should therefore limit their exposure as much as possible and take protective measures.
- *Graywater use and graywater treatment works must not create a public nuisance.* Graywater use and graywater treatment works must not create public nuisances such as odors and disease vectors (e.g., mosquitoes) habitat.

- *Graywater must not be stored for more than 24 hours unless the graywater has been treated by a graywater treatment works that meets the design requirements of section 86.12. All graywater must be stored inside a tank(s) that meets the design requirements of section 86.12.* Graywater stored for an extended time period will create an environment that encourages microorganism growth. Extended storage of untreated graywater will result in anaerobic (a.k.a. no oxygen) conditions and unpleasant odors. Colorado water rights laws will likely impact storage of treated graywater for an extended time period. In addition, this requirement is in conformance with the 2015 International Plumbing Code.
- *Temporary or semi-temporary connections from the potable water system or public water system to the graywater treatment works are prohibited. Permanent connections from the potable water system or public water system must be controlled with an appropriate backflow prevention assembly or backflow prevention method.* Temporary potable water connections to graywater treatment works are not allowed. An example of a temporary connection is a hose submerged in a graywater storage tank to provide irrigation water during vacation. The prohibition was put in place since temporary connections will not undergo design approval or have an appropriate backflow prevention assembly or backflow prevention method. While temporary connections are prohibited, graywater treatment works may have a permanent connection from a potable water system or public water system. Permanent connections from the potable water system or public water system must be controlled with an appropriate backflow prevention assembly or backflow prevention method as required in section 86.12.

B. Additional control measures required for subsurface irrigation use

- *Agricultural irrigation with graywater is prohibited.* In order to be protective of public health, and because insufficient information was presented at this hearing to fully evaluate the risk to public health, graywater may not be used for agricultural irrigation. The definition of agricultural irrigation includes household gardens, fruit trees, and other flora intended for human consumption. This is especially critical for local jurisdictions that allow household produced food products to be sold at farmers markets. The commission considers “human consumption” to mean any food or beverage consumed by humans, regardless of the processing method (e.g., raw, fermented, baked, canned).
- *Irrigation is prohibited when the ground is frozen, plants are dormant, during rainfall events, or the ground is saturated.* The commission intends to ensure that graywater use does not result in ponding, runoff, or unauthorized discharge to state waters. Therefore, graywater irrigation under these conditions is not allowed.
- *Irrigation scheduling must be adjusted so that application rates are closely matched with soil and weather conditions.* The amount of water needed for irrigation is dependent on a variety of local conditions such as the flora being irrigated, weather condition, and local soils. The user needs to be mindful that the required amount of graywater and nutrients will change over time and therefore the graywater application rate must also be adjusted.
- *Graywater must be applied at an agronomic rate which does not result in ponding, runoff, or unauthorized discharge to state waters.* The definition of agronomic rate is generally consistent with the definition from Regulation #84 (which addresses centralized reclaimed water operations). While this regulation does not require a water quality test, such testing is encouraged. Graywater use must not result in ponding, runoff, or unauthorized discharge to state waters.

- *For mulch basin systems, mulch must be replenished as required due to decomposition of organic matter. Mulch basins must undergo periodic maintenance, reshaping or removal of material to maintain surge capacity and to prevent ponding and runoff.* Microbial activity within the mulch basins will result in decomposition of organic material. To maintain the required storage volume and soil permeability, the mulch beds must undergo routine maintenance. This requirement was based on the 2013 California Plumbing Code.

C. Additional control measures required for indoor toilet flushing use

- *Graywater for toilet and urinal flushing use must be disinfected.* Graywater research indicates that graywater is to be expected to contain human pathogens. Therefore, the commission is using a multi-barrier approach, including the addition of a potent disinfectant to inhibit the presence of organisms, pathogens and viruses in the graywater distribution system.
- *Graywater treatment works that utilize chlorine for disinfection must have a minimum of 0.2 mg/L and a maximum of 4.0 mg/L of free chlorine residual throughout the indoor plumbing system, including fixtures.* The free chlorine residual requirement is generally consistent with Regulation #11. The commission is not implying that graywater for indoor toilet and urinal flushing must be treated to potable water standards, as defined by Regulation #11, but that a free chlorine residual range of 0.2 to 4.0 mg/L is reliably detectable and not high enough to adversely impact plumbing fixtures.
- *Single family graywater treatment works that utilize non-chemical methods, such as UV, for disinfection must have a chlorine puck present in each toilet tank.* The commission wants to give some flexibility to Category C systems and not require chlorine injection for all systems. Since some disinfectants, such as UV, do not have a residual present in the distribution system, a chlorine puck will inhibit the presence of organisms, pathogens, and viruses within the toilet tank and bowl.
- *Graywater for toilet and urinal flushing must be dyed with either blue or green food grade vegetable dye and be visibly distinct from potable water.* The commission adopted this requirement from the 2012 International Plumbing Code. Dye is a visual indicator that the water within the building is non-potable. Because single family households are not required to have signage for indoor toilet flushing, the dye serves as the notification method that a cross connection has occurred and graywater is entering the potable water lines of the operation.

X. **Treatment Works Design Criteria**

A. Design criteria treatment basis

For dispersed subsurface irrigation, the commission's intention with the design criteria is to protect the subsurface irrigation system from failure. The commission anticipates that without filtration, graywater irrigation systems would fail in a similar manner to an OWTS soil treatment area. Therefore, the commission is requiring filtration prior to the irrigation distribution system to inhibit failure of the emitter systems by particulate or bio-growth clogging. Irrigation system failure will result in surfacing graywater, unequal distribution, and discharge to groundwater.

For subsurface irrigation mulch basin systems, the commission's intention is to ensure that the mulch basin has an adequate volume for surge events and that the soil is capable of adsorption of any excess graywater that is not utilized by the flora. Mulch basin system failure will result in clogged mulch basins, surfacing graywater, and excessive discharge to groundwater.

For indoor toilet and urinal flushing, the commission is requiring a treatment technology that will be protective of public health and will consistently treat graywater without on-going water quality testing. Graywater research indicates that graywater is to be expected to contain human pathogens. Graywater is an emerging research area and peer reviewed research regarding graywater as a potential disease vector and treatment technology impacts on human pathogens are limited. Until additional graywater research studies indicate a definite public health safety threshold, the commission selected the ANSI/NSF 350-2011 standard for indoor toilet and urinal flushing. ANSI/NSF 350 is a performance based treatment testing protocol which requires a third party review of water quality data. The ANSI/NSF 350 standard is required in the 2015 International Plumbing Code and is required by other western states that allow indoor toilet flushing with graywater. The 2013 California Plumbing Code sets ANSI/NSF 350 as the minimum water quality standards (unless the authority having jurisdiction has other water quality requirements). Oregon allows indoor use with an ANSI certified graywater standard. In addition to ANSI/NSF 350 treatment, the commission is requiring dye to visually differentiate graywater from potable water, as well as requiring a disinfectant to prevent biological growth in the graywater distribution system.

B. Flow projections

The commission is adopting graywater flow rates based on the 2012 Uniform Plumbing Code. The 2012 Uniform Plumbing Code includes daily flow estimates for water saving fixtures while the 2015 International Plumbing Code only has traditional fixture daily flow estimates. The commission received comments from local agencies indicating that the allowed occupancy rates and therefore overall flow rate projections are not very conservative. The commission determined that if graywater is produced at graywater treatment works designed with a storage tank at a rate higher than the estimates, that any excess graywater will overflow to a combined sewer system. Excess graywater production will not impact the graywater treatment works flow (after the storage tank) for graywater use and the overall flow to the closed sewerage system from the facility will not be impacted.

For mulch basin systems without a storage tank, excess graywater production may have a more direct impact. A mulch basin without a storage tank, which is sized for surge events at three times the daily production volume, provides some safety factor for additional daily flow. The local implementing agencies will have the flexibility to adopt more conservative flow rates. For multi-family residential systems, this flow projection design criteria allows flexibility if site specific flow information is available. The residential flow values are intended for circumstances where site specific fixture information is unknown.

C. General graywater treatment works design criteria

The commission is adopting general design criteria for all graywater treatment works including: component sizing requirements, a graywater diversion valve, no bypass lines around the treatment works, and labeling. Treatment works components must be sized to treat the anticipated peak flow rate. For example: an improperly sized filter upstream of a storage tank may result in graywater backing up into the building's plumbing system. The diversion valve is a critical component for the graywater user to allow graywater to be sent to the closed sewerage system during non-irrigation periods, divert graywater when cleaning the tank, divert graywater when hazardous chemical are being used in the building, etc. The diversion valve is intended to direct graywater prior to the graywater treatment works to a closed sewerage system. No bypass lines around the graywater treatment works prior to use is allowed. The graywater lines must also be clearly distinguished to guarantee that the graywater piping is not mistaken for potable water piping. This requirement is intended to be consistent with the anticipated Colorado Plumbing Code requirements but will apply to all graywater piping, including piping outside the structure.

This regulation is consistent with the requirements for onsite wastewater treatment facilities with respect to: the impact of a graywater system on the onsite wastewater treatment facility sizing, floodplain, and floodway requirements. The onsite wastewater treatment system must be sized for the potentially full wastewater treatment flow from the facility in the event that future property owners elect to discontinue use of the graywater treatment works.

The commission determined that a storage tank is required for all graywater treatment works, except for properly sized mulch basin systems. Tanks equalize flow surges and minimize water quality variations through the day. Tanks also allow graywater application to be controlled to ensure agronomic rate control. If excess graywater is produced (over the agronomic rate), the excess graywater will be sent to the closed sewerage system via the overflow line rather than being disposed of in the subsurface irrigation system. Tanks can be used as a collection reservoir for a pressurized graywater distribution system which will allow for equal distribution of graywater throughout graywater piping. For indoor tanks, the Colorado Plumbing code may be more restrictive than the requirements in this regulation, but the design criteria adopted here set minimum standards for water quality needs. The required tank appurtenances are important design features necessary for maintaining the required control measures. Design criteria were included for tank materials, access openings, vents, overflow lines, drains, tank foundation, and signage. A minimum tank volume of 50 gallons was adopted based on the 2012 Uniform Plumbing Code. Outdoor tanks must be protected from direct sunlight to limit biological growth prior to use of stored water.

Some graywater treatment works will produce backwash waste streams. The backwash waste stream must be properly contained or disposed. An example of a graywater treatment works with a produced wastewater stream would be a filter with a backwash process. Any wastewater from the treatment process must be sent to an appropriate disposal location such as a closed sewerage system or an approved Underground Injection Control well.

Graywater treatment works must be located within the confines of the legal property boundary and not within an easement.

D. Additional design criteria for Categories A and B

In order to ensure the integrity of the irrigation system, the commission is requiring a filter. The filter must be located between the treatment system and the irrigation distribution system to inhibit failure of the soil or emitter systems by particulate clogging. A 60 mesh filter was determined to be the appropriate minimum size for protection of the irrigation system. However, the irrigation system manufacturer may recommend smaller filter sizes based on the selected graywater irrigation system components. Local governments can be more stringent and require designers to follow the manufacturer's recommendations. Prefiltration is not required but is recommended to reduce maintenance on the 60 mesh filter. The filter must be located between the tank and the irrigation area. To prevent pump failure, the filter must be located after the pump and not on the suction side of the pump.

For mulch basin systems, the commission's aim was to not require a filter and to allow for simple graywater systems. It is anticipated that the mulch and underlying soil will act similar to a trickling filter and will provide some treatment of graywater that is not used by the flora.

E. Back up potable water system requirements for Categories A, B, C, and D

The commission is adopting different cross-connection control requirements for a graywater system served by a public water system (as defined in Regulation #11) than for graywater systems served by a non-public water system. The commission believes that installation of control devices is critical at all graywater treatment works with potable water connections. However, the commission does not want to require annual device testing for non-public water system users and customers (e.g., a single family house on an individual private well) that would not be required under the commission's existing regulations. The cross connection control requirements for public water systems are well defined in Regulation #11 and therefore this regulation does not repeat the associated requirements. For urinal and toilet flushing users, potable water supply is required for sanitary purposes since toilets and urinals must have a water supply at all times. For subsurface irrigation users, a potable water supply is optional.

F. Signage requirements for non-single family users

The regulation requires signage for public notification. The signage requirement is for non-single family users since the building occupants and visitors are less likely to be aware that a graywater treatment works is in use than at a single family residence. The required signage is for general notification and is a component of the required control measures. For non-single family users, signs are required at three locations: 1) point of graywater production (e.g., sink), 2) location of the graywater treatment works, and 3) point of graywater use (e.g., irrigation area, toilet). At the point of production, the purpose of the sign is to notify building occupants or visitors that the water is being reused and to ensure that the graywater is not being inadvertently contaminated. At the location of the graywater treatment works, the purpose of the sign is to notify occupants and building maintenance personnel in order to prevent accidental exposure to graywater. At the point of use, the purpose of the sign is to notify the persons using the irrigation area, toilet, or urinal.

G. ANSI/NSF 350 standard certified treatment for Category C and D systems

NSF/ANSI 350-2011 is a performance based water quality standard developed by the NSF Joint Committee on Wastewater Technology in 2011 for residential and commercial graywater treatment for indoor toilet and urinal flushing. The standard sets the minimum design, material, design and construction, and performance requirements for on-site residential and commercial graywater treatment systems. Technologies are tested under normal operating conditions and stress conditions and water quality results are verified by a third party certification agency. The standard does not specify the treatment technologies used to meet the water quality standard which gives flexibility of various treatment technologies to get certified. The commission finds that the ANSI/NSF standard meets an acceptable technology review protocol that would be certified by a third party agency to simplify the technology review process for the local jurisdictions. In addition, ANSI/NSF is a nationally recognized standard that is intended to be protective of public health and would consistently treat graywater without the need for on-going water quality testing. As the ANSI/NSF certification standard is relatively recent only a few manufacturers have gone through the certification process. The commission anticipates that as indoor graywater use becomes more accepted, more manufacturers will certify their products. Additionally, the ANSI/NSF 350 standard has on-site performance testing and evaluation protocol for commercial systems over 1,500 gallons per day. The commission anticipates some graywater users will use a third party testing agency to certify their graywater treatment works to the NSF/ANSI 350 standard.

H. Disinfection requirements for Category C and D systems

Graywater research indicates that graywater is to be expected to contain human pathogens; therefore, the commission considers the use of a potent disinfectant an essential part of a multi-barrier approach to protect public health. The use of a disinfectant is required if disinfection is not already part of the ANSI/NSF equipment. The disinfectant is to inhibit the growth of microorganisms, pathogens and viruses in the indoor graywater plumbing system. For non-single family systems, the commission is requiring a free chlorine residual of 0.2 mg/L to 4 mg/L to prevent regrowth of microorganism in the graywater distribution system. Non-single family users are expected to have a large potentially impacted population and a more complicated distribution system design than single family systems. To reduce the burden on single family users, systems that use non-chemical methods for disinfection are required to use a chlorine puck in the toilet or urinal.

To maintain a multi-barrier approach, the commission is requiring that the disinfection process be capable of producing free chlorine rather than total chlorine. The disinfection process for non-single family users must be capable of injecting enough chlorine to react with all reducing agents, ammonium, organics, etc present in the graywater (aka past the breakpoint chlorination point) and that free chlorine must be present. EPA documents indicate that chloramines (which are formed prior to breakpoint chlorination) are approximately 100 times less effective than free chlorine at inactivating pathogens such as *Giardia lamblia* or viruses. Therefore, the commission believes that free chlorine is a readily available and safe, potent disinfectant.

I. Professional Engineers for Category D systems

The professional engineer requirement for graywater treatment works with a design capacity greater than 2,000 gallons per day was determined to be necessary to ensure the protection of public health and the environment. The local jurisdiction may elect to make designer requirements more stringent in their graywater control program.

XI. Irrigation System Design Criteria

A. General design criteria basis

The irrigation design requirements in this regulation are modeled after the State of Washington's graywater regulation (Chapter 246-274 WAC). Washington requires that graywater be applied directly to the plant root zone. The requirement that irrigation systems be located four (4) inches below ground rather than two (2) inches results in less potential graywater surfacing or accidental breakage incidents. The commission wants to be in general conformance with the required set back distance requirements.

The requirements adopted for single family dispersed subsurface irrigation systems are intended to prevent undersizing of the subsurface irrigation area while making the application process straightforward. For non-single family dispersed subsurface irrigation systems and mulch basin systems, the commission's intent was to adequately size the irrigation system using the best information available including site specific soil testing.

B. Irrigation system requirements for Single Family irrigation system

The intention with the dispersed subsurface irrigation systems area sizing was to have a reasonable and simple calculation for single family systems. The commission believes this equation is the simplest and most economical method to estimate the landscape area for small graywater systems. The equation is used by other state agencies (e.g., Idaho, Washington) and designers (e.g., Oasis Design). Furthermore, this method does not require soils testing at each single family residential site. Local jurisdictions that are not comfortable without soils testing results may elect to require the mulch bed or Category B requirements for the single family dispersed subsurface irrigation systems.

C. Irrigation system requirements for Mulch Basin and Non-Single Family dispersed subsurface irrigation systems

The commission modeled the Category B and mulch basin irrigation design requirements on the State of Washington's graywater regulation (Chapter 246-274 WAC). The Washington soil type table was merged with the soil type descriptions in Regulation #43 for ease of local implementation and for consistency between commission regulations. The soil depths are not the same as the Regulation #43 requirements since Regulation #43 is intended for onsite wastewater treatment while this regulation is intended for graywater use by flora. Although intended for use by flora, the mulch basin system design criteria recognize that disposal to groundwater may result. This recognition is the basis for requiring a site and soil evaluation for all mulch basin systems, even single family systems. The site and soil evaluation requirement aims to provide site specific conditions design parameters to allow proper design for category B and mulch basin systems.

Mulch basin design requirements in other western states were researched, and detailed mulch basin design parameters were not found. Therefore the commission's goal for the mulch basin design criteria was to have sufficient volume to adsorb graywater volume surges for graywater treatment works. For graywater treatment works that do not have a storage tank the volume requirements are to capture a surge volume three (3) times the daily flow. For graywater treatment works with a storage tank the volume requirement has a safety factor of 1.5 times the daily flow. The purposes of the other mulch basin design criteria are for proper operation and to minimize potential human exposure.

86.22 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY, AND PURPOSE; NOVEMBER 9, 2015 RULEMAKING, EFFECTIVE DECEMBER 30, 2015

The provisions of sections 25-8-202(1)(c) and 25-8-205(1)(g), C.R.S., provide the specific statutory authority for the Graywater Control Regulation adopted by the Water Quality Control Commission (commission). The commission has also adopted, in compliance with section 24-4-203(4), C.R.S., the following statement of basis, specific statutory authority, and purpose.

BASIS AND PURPOSE

The commission stated in the statement of basis and purpose language in section 86.21 that, "[t]he commission anticipates future reviews of this regulation to include a review for improved organization and readability." In the November 9, 2015 rulemaking the Commission reorganized Regulation #86 and, in some cases, clarified the language. These changes to Regulation #86 are not substantive and are not intended to create any new or different requirements for graywater systems. The revisions are intended to make Regulation #86 easier to understand, comply with, and implement.

In an effort to provide clarity the following revisions were made:

-
- Section 86.9 - clarified which of the local graywater program requirements must be adopted under an ordinance or resolution and which requirements may be adopted under rule,
 - Section 86.11 - created a new independent section for graywater treatment works – flow projections in section
 - Section 86.12 - reorganized the graywater treatment works design criteria in section into: subsurface irrigation graywater treatment works design criteria and indoor and urinal flushing graywater treatment works design criteria, rather than design criteria for each use category,
 - Section 86.13 - moved the operation and maintenance manual requirements to section 86.13,
 - Section 86.14 - moved the control measure requirements to section 86.14, and
 - Minor editorial changes for clarity throughout.

Editor's Notes

History

Entire rule eff. 06/30/2015.

Rules 86.7.B, 86.9.B, 86.9.C.2, 86.11-86.15, 86.22 eff. 12/30/2015.

AGENDA ITEM #11



To: Honorable Mayor Clark and Ridgway Town Council
From: Preston Neill, Town Manager
Date: January 4, 2022
Agenda Topic: **Review and action on Intergovernmental Agreement between the Town of Ridgway, City of Ouray and Ouray County for Shared Victim Advocate Services**

SUMMARY:

Council is asked to review and take action on a revised Intergovernmental Agreement (IGA) between the Town of Ridgway, the City of Ouray and Ouray County for the use of an employee of the Town of Ridgway to provide victim advocacy services to the three jurisdictions in Ouray County. The attached IGA for calendar year 2022 remains the same as the IGA for calendar year 2021, except that the term has been updated to reflect the current year and each jurisdiction's financial contribution amount is lower than last year based on the additional grant funding we received.

PROPOSED MOTION:

"I move to approve the IGA between the Town of Ridgway, the City of Ouray, and Ouray County for Shared Victim Advocate Services."

ATTACHMENT:

IGA for Shared Victim Advocate Services

INTERGOVERNMENTAL AGREEMENT
TOWN OF RIDGWAY, CITY OF OURAY, and OURAY COUNTY
SHARED VICTIM ADVOCATE(S) SERVICES

THIS AGREEMENT is entered into effective ____ day of _____, 2022, by and between: the Town of Ridgway, Colorado (Ridgway); and the City of Ouray, Colorado (Ouray), both of which are home rule municipalities within Ouray County, Colorado and Ouray County, Colorado (County), a statutory county in the State of Colorado, (collectively the Parties or individually the Party).

Purpose of Agreement

- A. Section 29-20-101 C.R.S., et seq. enables the Parties to enter into Intergovernmental Agreements (IGA) and authorizes each of the Parties to perform the functions described herein, as provided in Section 29-20-105 C.R.S.; and
- B. Intergovernmental agreements to provide functions or services, including the sharing of costs of such services or functions, by political subdivisions of the State of Colorado, are specifically authorized by C.R.S. 29-1-203 and encouraged in order that the inhabitants of such political subdivisions may thereby secure high quality governmental services; and
- C. Ridgway, Ouray and Ouray County each recognize the need to employ an individual to act as Victim Advocate(s), to perform victim advocacy services for all of Ouray County; and
- D. The Parties recognize the fiscal and administrative benefits of utilizing one person to conduct victim advocacy services; and
- E. The Parties wish to memorialize their understandings regarding their agreement to share the financial and administrative responsibilities and services through employing the Victim Advocate(s); and
- F. The Parties entered into similar Intergovernmental Agreements in 2018, 2019, 2020 and 2021 for the same purpose.

In consideration of the covenants and conditions contained herein, the Parties agree as follows.

1. **Designation of the Victim Advocate(s).** The Parties must agree to the designation of any particular person to be employed as the shared the Victim Advocate(s).
2. **Financial Responsibilities.** The financial responsibilities for the employment of the shared Victim Advocate(s) shall be as follows:

- a. The shared Victim Advocate(s) shall be an employee of the Town of Ridgway and not the City of Ouray or Ouray County, and shall be compensated by the Town of Ridgway partially through a grant provided by the Victim Assistance Law Enforcement Board and a grant provided by the Colorado Department of Public Safety, Division of Criminal Justice, for such services. The Parties recognize and understand that for Fiscal Year 2022 the Victim Assistance Law Enforcement Board awarded \$18,729.00 and the Colorado Department of Public Safety, Division of Criminal Justice, awarded \$27,884.00 for program services in Ouray County, and the cost of the program is estimated at \$47,166.76, creating a funding gap of \$553.76.
 - b. The Town shall be responsible for all employment related expenses mandated by state and federal law, including any required worker's compensation and unemployment insurance, any federal or state taxes or required withholdings, and any other employer expenses related to the Victim Advocates employment with the Town.
 - c. The Parties agree to work together to budget the gap funding at \$184.59 from each Party and/or identify supplemental sources in order to fund the \$553.76 gap for Victim Advocate services in 2022, pursuant to subsection e below.
 - d. The shared Victim Advocate(s), as a part time temporary employee of the Town of Ridgway, shall be compensated for any time in excess of forty (40) hours per week as provided in the Town of Ridgway's Personnel Regulations.
 - e. The shared Victim Advocate(s) shall be subject to the Town of Ridgway's Personnel Regulations, as may be amended, except the Victim Advocate(s) shall have no benefits with the Town of Ridgway, City of Ouray, or Ouray County.
 - f. The Town of Ridgway has been awarded grant funding for 98.82% of the cost of the Victim Advocate(s) in 2022. In the event the Town of Ridgway anticipates expenses may exceed the grant award, the Town shall consult with the City and/or County to consider any additional expenditures. The City and/ or County shall only be responsible for an equal share after the Town has consulted with the City and/or County, and the financially impacted Party or Parties have agreed on the expenses to be reimbursed to the Town.
 - g. In the event of a worker's compensation claim related to work performed within the City or the County, the Town's insurance shall be responsible for the claim and the City or County shall cover the Town's reasonable expenses for that claim in the respective jurisdiction, upon notice and approval of the same.
3. **Accountability.** The accountability requirements of the shared Victim Advocate(s) to the Parties shall be as follows:

- a. The Victim Advocate(s) shall provide a monthly written report to all Parties.
- b. The Victim Advocate(s) shall meet with the Ridgway Town Marshal, Ouray Police Chief, or Ouray County Sheriff upon request by any of the Parties.
- c. The Victim Advocate(s) shall submit comprehensive daily time sheets to Ridgway by 8:00 a.m. Monday morning, following the end of each bi-weekly pay period, or whatever the policy of the Town of Ridgway may be, if amended.
- d. To protect the Parties from false claims, the Victim Advocate(s) shall keep a daily log of services conducted, on a form approved by the Parties (Exhibit A).
- e. Notwithstanding the fact that the Victim Advocate(s) is an employee of the Town of Ridgway, the Town of Ridgway shall not be responsible for supervision and oversight of the Victim Advocate(s) in performing his or her responsibilities for the City of Ouray or Ouray County as further defined in ¶ 6 herein, and within the Victim Advocate(s) Contract of Employment. Such supervision and oversight shall be the responsibility of the Ridgway Marshal, Ouray City Police Chief or Ouray County Sheriff, for services rendered within the respective jurisdiction.

4. **Performance Issues.** Any performance issues shall be handled as follows:

- a. For purposes of this Agreement, Supervising Parties are assigned as follows:

<u>Jurisdiction:</u>	<u>Supervising Party:</u>
Town of Ridgway	Town Marshal
City of Ouray	Police Chief
Ouray County	Sheriff

- b. Minor issues, those issues warranting nothing more than an oral or written reprimand, should be brought to the attention of the Victim Advocate(s) first, by the Supervising Party (Ridgway Marshal, Ouray Police Chief, Ouray County Sheriff) in the jurisdiction where the minor issue occurred. In the event said minor issues cannot be resolved, the Ridgway Town Marshal shall be contacted. Issues deemed to be minor issues according to either of the Parties shall be addressed as soon as is practical, by the designated supervisor for the Victim Advocate(s) within each municipality or County.
- c. Issues deemed to be major issues, those issues warranting more than an oral or written reprimand, by either municipality or county, and possibly requiring disciplinary action shall be subject to the Town of Ridgway's Personnel Regulations. The Supervising Party (Ridgway Town Marshal, Ouray Police Chief, Ouray County Sheriff) shall submit any information on such issues, in writing, to the Ridgway Town Marshal (if outside of the Ridgway jurisdiction), and the

Ridgway Town Marshal shall contact the Primary Administrator (Ridgway Town Manager, Ouray City Administrator, and /or Ouray County Administrator) of the participating jurisdiction for review.

5. **Fiscal Reporting.** Fiscal reporting responsibilities of the shared Victim Advocate(s) shall be as follows:
 - a. None.

6. **Job Responsibilities and Oversight.** Job responsibilities and oversight for the shared Victim Advocate(s) shall be as follows:
 - a. Pursuant to grants awarded to the Town of Ridgway by the Victim Assistance Law Enforcement Board and the Colorado Department of Public Safety, Division of Criminal Justice, Victim Advocate(s) shall provide victim advocate services for the months of January through December 2022 for all Parties. Victim Advocate(s) shall provide 24/7 on-call coverage during the 2022 calendar year. The duties shall be rendered in Ouray County, Colorado, or at such other place or places and at such times as the needs of the Parties may from time-to-time dictate.
 - b. On behalf of all Parties, all applicable duties as assigned by the Supervising Party shall be timely performed.
 - c. The Supervising Parties shall be responsible for victim advocacy solely within their own boundaries and jurisdiction. Nothing contained in this Agreement shall place a burden or responsibility on any Party to provide services within the jurisdiction or boundaries of any other Party.

7. **Insurance.** The Parties shall, without waiving any governmental immunity protections to which they and their officials or employees are entitled under C.R.S. 24-10-101, et seq., to obtain adequate insurance to cover the liability and other risks to which they may be exposed as a result of the services to be provided pursuant to this agreement, if either of the Parties does not already have such insurance, and to maintain such insurance throughout the term of this agreement.

8. **Term-Withdrawal.** The term and withdrawal provisions applicable to this agreement are as follows:
 - a. This Agreement shall be for a period of one (1) year commencing January 1, 2022 and ending December 31, 2022.
 - b. Subject to annual appropriation by each municipality and county to meet its obligations herein, this agreement shall be automatically renewed on an annual

basis without the need to execute a new agreement unless amendments are required by either of the Parties.

- c. Either municipality may withdraw from participation in this agreement at any time by providing written notice to the other municipality, at least thirty (30) days prior to the desired date of withdrawal.
9. **Amendments.** This agreement shall not be modified or amended in any manner except by written instrument executed by the Parties.
10. **Waiver.** The waiver of any breach of any of the provisions of this agreement, by either Party, shall not constitute a continuing waiver of any subsequent breach by that Party, either of the same, or of another provision of this agreement.
11. **Severability.** Invalidation of any of the provisions of this agreement, or of any paragraph, sentence, clause, phrase, or word herein, or the application thereof, in any given circumstance, shall not affect the validity of the remainder of this Agreement.
12. **No Third-Party Beneficiaries.** Nothing expressed or implied in this agreement is intended or shall be construed to confer upon, or to give any person other than the Parties hereto, any right, remedy or claim, under or by reason of this agreement.
13. **Entire Agreement.** This agreement contains the entire and only agreement between the Parties, regarding the employment of the shared Victim Advocate(s) and no oral statements or representations regarding this matter that are not contained in this agreement shall be of any force or effect between the Parties.
14. **Governing Law.** This agreement shall be governed by the laws of the State of Colorado, both as to interpretation and performance. The courts of the State of Colorado shall have exclusive jurisdiction to resolve any disputes arising out of this agreement and venue shall be in Ouray County, Colorado.
15. **Dispute Resolution.** In the event a disagreement or dispute arises between the Parties, the matter shall be submitted to mediation. The mediation shall be conducted by one mediator selected by the Parties who will share the costs equally.
16. **Assignment.** No Party shall assign any responsibilities nor delegate any duties arising under this agreement without the prior written consent of all the Parties.

IN WITNESS WHEREOF, the Parties have executed this agreement in duplicate effective the date first above written.

TOWN OF RIDGWAY

John Clark, Mayor

Attest:

Pam Kraft, Town Clerk

CITY OF OURAY

Ethan Funk, Mayor

Attest:

Melissa Drake, City Clerk

OURAY COUNTY

Ben Tisdell, Chair, Board of County Commissioners

Attest:

Hannah Hollenbeck, Deputy Clerk

AGENDA ITEM #12

Date: December 10, 2021

Dear Interested Party:

I have released my draft Decision Notice and the Environmental Assessment (EA) for the Baldy Mountain Landscape Resiliency and Habitat Improvement Project.

The proposed activities are a coordinated effort between the Ouray Ranger District, Uncompahgre Field Office of the Bureau of Land Management (BLM), Natural Resources Conservation Service (NRCS), the Mullin's Ranch, and multiple other landowners. The intent of this project is to treat existing vegetation including pinyon, juniper, aspen, mixed conifer, and mixed mountain shrubs to benefit wildlife habitat; reduce fuels both within and outside of the wildland urban interface; and improve landscape resiliency by reintroducing fire to the ecosystem to reduce the risk of large catastrophic wildland fire while increasing the resiliency of the landscape to fire and other disturbances and subsequent post-disturbance effects such as flooding and soil erosion. The project area provides habitat for multiple species including Rocky Mountain bighorn sheep, elk, and mule deer.

The need is to create openings and additional edge habitat and increase the quality and quantity of grazing and browsing opportunities for big game and to reduce hazardous fuels. This area has been largely free of disturbance for some time and the resulting vegetation is thick and moving towards a decadent state with little understory and not providing quality browse.

The Ouray County, Colorado Community Wildfire Protection Plan was used to aid in the identification of communities at risk from wildfire. Implementing treatments will also give managers more options when dealing with wildfire in the future within the project area.

Treatment within aspen will promote regeneration and resiliency of aspen in the project area. Treating the entire area will provide quality habitat for multiple species over a large area which will minimize competition among species.

Based upon my review of analysis contained in the EA and appendices, project file and technical reports, I have decided to approve the Proposed Action as described for National Forest System (NFS) lands with all design features/resource protection measures, public involvement and monitoring identified. Project activities proposed on NFS lands include approximately 1,076 acres of prescribed fire (870 acres of which are in Colorado Roadless Area (CRA)), mechanical treatments (e.g., using masticator) on 685 acres (188 acres within CRA), 176 acres of fire line buffer, where vegetation will be thinned more than the interior of the treatment units (76 acres in CRA), improving small portions of < 1 mile of existing road to allow masticator access to project area. Some treatments may be overlapping.

Additional information can be found in the EA and in my Draft Decision Notice at the following weblink: <https://www.fs.usda.gov/project/?project=58554> .



Filing an Objection

My draft decision is subject to a predecisional objection in accordance with the provisions of 36 CFR §218 subparts A and B. Objections must be filed with the reviewing officer in writing. All objections are available for public inspection during and after the objection process. Issues raised in objections must be based on previously submitted and timely, specific written comments regarding the proposed project or activity and attributed to the objector, unless the issue is based on new information that arose after the opportunities for comment on the Preliminary EA.

At a minimum, an objection must include the following: (1) Objector's name and address as defined in 36 CFR § 218.2, with a telephone number, if available; (2) Signature or other verification of authorship upon request (a scanned signature for electronic mail may be filed with the objection); (3) When multiple names are listed on an objection, identification of the lead objector as defined in 36 CFR § 218.2. Verification of the identity of the lead objector must be provided upon request or the reviewing officer will designate a lead objector as provided in 36 CFR § 218.5(d); (4) The name of the proposed project, the name and title of the responsible official, and the name(s) of the national forest(s) and/or ranger district(s) on which the proposed project will be implemented; (5) A description of those aspects of the proposed project addressed by the objection, including specific issues related to the proposed project; if applicable, how the objector believes the environmental analysis or draft decision specifically violates law, regulation, or policy; suggested remedies that would resolve the objection; supporting reasons for the reviewing officer to consider; and (6) A statement that demonstrates the connection between Objector's prior specific written comments on the particular proposed project or activity and the content of the objection, unless the objection concerns an issue that arose after the designated opportunities for comment on the Revised Preliminary EA (i.e. after August 4, 2015). Incorporation of documents by reference is permitted only as provided for at 36 CFR § 218.8(b).

Objections, including attachments, must be filed (regular mail, delivery service or online) with the Reviewing Officer (see 36 CFR § 218.3 and §218.8) within 45 days of the publication of the legal notice in the *Montrose Daily Press*. The publication date of the legal notice in the *Montrose Daily Press* is the exclusive means for calculating the time to file an objection. Those wishing to object should not rely upon dates or timeframe information provided by any other source. Evidence of timely filing is described in 36 CFR § 218.9. Please submit objections to the Reviewing Officer at:

Mail or delivery:

Chad Stewart, Forest Supervisor/Reviewing Officer
Grand Mesa, Uncompahgre and Gunnison National Forests
2250 South Main St.
Delta, CO 81646

Electronic objections must be filed online; attachments may be included in a variety of formats (such as pdf, plain text (.txt), rich text format (.rtf), or MSWord (.doc)). In cases where no identifiable name is attached to an electronic message, a verification of identity will be required. A scanned signature is one way to provide verification.

Online: <https://cara.ecosystem-management.org/Public//CommentInput?Project=58554> .

If you have any questions or need assistance accessing documents, please contact Luke Holguin, Zone Wildlife Biologist, at luke.holguin@usda.gov or 970-327-4261.

Sincerely,

DANA GARDUNIO
District Ranger

Baldy Mountain Landscape Resiliency and Habitat Improvement Project Decision Notice and Finding of No Significant Impact

**U.S. Forest Service
Ouray Ranger District
Grand Mesa, Uncompahgre and Gunnison National Forests
Ouray County, Colorado**

INTRODUCTION

The analysis in *Baldy Mountain Landscape Resiliency and Habitat Improvement Project Environmental Assessment* (EA) is a coordinated effort between the Grand Mesa, Uncompahgre and Gunnison National Forests (GMUG) Ouray Ranger District and the Bureau of Land Management's Uncompahgre Field Office (BLM), Natural Resources Conservation Service (NRCS), the Mullin's Ranch, and multiple other landowners. The GMUG and BLM have prepared this EA to analyze and disclose the environmental effects to the surrounding physical and natural resources from treating existing vegetation including pinyon, juniper, aspen, mixed conifer, and mixed mountain shrubs to benefit wildlife habitat; reducing fuels both within and outside of the wildland urban interface; and improving landscape resiliency by reintroducing fire to the ecosystem to reduce the risk of large catastrophic wildland fire while increasing the resiliency of the landscape to fire and other disturbances and subsequent post-disturbance effects such as flooding and soil erosion.

PURPOSE AND NEED

The intent of this project is to treat existing vegetation including pinyon, juniper, aspen, mixed conifer, and mixed mountain shrubs to benefit wildlife habitat; reduce fuels both within and outside of the wildland urban interface; and improve landscape resiliency by reintroducing fire to the ecosystem to reduce the risk of large catastrophic wildland fire while increasing the resiliency of the landscape to fire and other disturbances and subsequent post-disturbance effects such as flooding and soil erosion. The project area provides habitat for multiple species including Rocky Mountain bighorn sheep, elk, and mule deer.

The need is to create openings and additional edge habitat and increase the quality and quantity of grazing and browsing opportunities for big game and to reduce hazardous fuels. This area has been largely free of disturbance for some time and the resulting vegetation is thick and moving towards a decadent state with little understory and not providing quality browse.

The Ouray County, Colorado Community Wildfire Protection Plan was used to aid in the identification of communities at risk from wildfire. These communities that are within or adjacent to the project area include: Piedmont Hills/Valley Heights, Idlewild, Ponderosa Village/Indian Springs, Lake Lenore/Panoramic Heights, and Whispering Pines. Implementing treatments will also give managers more options when dealing with wildfire in the future within the project area.

Treatment within aspen will promote regeneration and resiliency of aspen in the project area. Treating the entire area will provide quality habitat for multiple species over a large area which

will minimize competition among species.

DECISION

The EA documents the environmental analysis and conclusions upon which this decision is based.

Based upon my review of analysis contained in the EA and appendices, project file and technical reports, as Ouray District Ranger, I have decided to approve the Proposed Action as described for National Forest System (NFS) lands with all design features/resource protection measures, public involvement and monitoring identified. All project activities are summarized below in Table 1.

Table 1. Proposed Treatment Activities and Extent (acres have been rounded to nearest acre)

Activity	Forest Service	CO Roadless	BLM	Private	Total
Rx Fire (Acres)	1,076	870	526	662	2,264
Mechanical <35% slope (Acres)	607	128	348	1,290	2,245
Mechanical <35% slope Option (Acres)	78	60	1	419	498
Hand Crew (Acres)	488	451	252	86	826
Buffer Rx Fire 100 Ft (Acres)	101	76	84	88	273
Temporary Access Improvements (Miles)	< 1	0	<1	0	<2
Water Development (Items)	0	0	0	1	1
Total Acres	2,350	1,585	1,211	2,545	6,106

My decision does not constrain the BLM Uncompahgre Field Office Manager, who is the responsible official for the BLM, to approve or deny treatments on BLM managed public lands or for private landowners to do cooperative and similarly identified projects on their lands.

DECISION RATIONALE

I have considered the opportunity to achieve more efficient and effective management of federal resources by jointly working with BLM and NRCS on the development of the proposed action to improve habitat conditions and promote fire resiliency on public and private lands. We have also coordinated with Colorado Parks and Wildlife and the National Forest Foundation.

TREATMENT CLARIFICATION

For all mechanical option units, I hope to use fire as the primary tool, but based on site conditions and crew availability to burn, I am keeping mechanical treatment as an option to treat these NFS lands.

RELATIONSHIP TO OTHER ACTIONS

The EA has considered effects of proposed actions within the project area regardless of ownership. While BLM and private lands are not within my decision space, this landscape scale project shares important values for numerous wildlife species and community protection for various residential areas and private lands.

FOREST TRAILS AND ROADS

My decision does not exclude the public's use of the project area on public trails except during active burning. Burning will be of very limited duration. No new roads are proposed on NFS lands. One old road two-track road which accesses the southern flatter area (Unit F8/M8) northwest of Crooked Tree Gulch will be utilized. It originates on the Mullin's Ranch and is on approximately 0.92 miles of NFS lands and 0.90 miles of BLM. It is unknown what this route was originally used for on public lands but it may have been created to install antennas used for television reception in the Town of Ouray. This route may need some improvements in order for a masticator machine to access unit F8/M8. The road template is still in good condition and improvements would entail widening in three locations where the road narrows to approximately 10 feet wide. This route is not open to the public.

COLORADO ROADLESS AREAS

Some of the project activities (1,584 acres) occur within Colorado Roadless Areas. None of the CRA is considered "upper tier" or subject to the requirements of "upper tier" areas. The proposed activities are consistent with the restrictions and exceptions of CRR. Tree cutting/mastication in roadless is excepted by 36 CFR 294.42(c)(3) to restore the characteristics of the ecosystem, by 36 CFR 294.42(c)(4) to restore habitat, and by 36 CFR 294.42(c)(5) which is incidental to the habitat improvement. Temporary roads and firelines >50" wide are neither proposed nor anticipated in roadless areas.

AIR QUALITY

Air permits will be required for prescribed fire to comply with state and federal regulations. Monitoring of smoke will also be required. Public notification will occur prior to burning.

PUBLIC INVOLVEMENT

On August 10, 2020 a project press release was issued with input from NRCS, BLM and Colorado Parks and Wildlife to media outlets. On August 11, 2020, project legal notice was

printed in the *Montrose Daily Press* and 98 letters were sent to the Ouray district mailing list. Project is also posted on the GMUG's website: <https://www.fs.usda.gov/project/?project=58554>.

During scoping, a total of 19 comments or calls on the Proposed Action were submitted or received from individual citizens, local governments, and non-governmental organizations. Comments were considered and addressed, where appropriate, in the EA (including issues (Section 2.2), alternatives (Sections 2.1 and 2.1.2), and analysis (Chapter 3)).

Meetings, calls and field trips with various individuals and groups occurred during the project development phase, after scoping, and continue to occur to resolve or address concerns, answer questions and continue to work with current and interested partners. Continued public involvement is required by my decision through the implementation phase.

A summary of the comments received is in the project file.

FINDINGS REQUIRED BY OTHER LAWS AND REGULATIONS

This decision is consistent with the 1991 Grand Mesa, Uncompahgre and Gunnison National Forest Land and Resource Management Plan. The project was designed in conformance with Forest Plan direction for management area 5A which is big game winter habitat in non-forest areas where vegetation treatment will enhance plant and animal diversity. The project activities meet standards and guidelines for applicable visual resource objectives, wildlife and fish resource management, range resource management for management area 5A. 1991 Plan pp. III-124 to III-130. In addition, project activities meet applicable forest-wide management direction (1991 Plan pp. III-9a to III-91). Therefore, my decision complies with the National Forest Management Act.

The following additional federal laws have specific application to this proposed action and have considered to ensure compliance. Further information can be found in the EA in the sections indicated, design features/resource protection measures included in my decision or in the project file.

- Clean Water Act (EA 2.2.1 and 3.6)
- Clean Air Act (EA Sections 2.1.1, 2.1.2, and 3.1)
- The Endangered Species Act (EA 2.1.3.2, 3.3, Appendices A and B, Biological Assessment, Concurrence from US Fish and Wildlife Service)
- Executive Order 11988 - Floodplain Management (EA 2.2.1 and 3.6)
- Executive Order 11990 - Protection of Wetlands (EA 2.2.1 and 3.6)
- National Historic Preservation Act of 1966 (FEA 3.3, 4.2.3)
- Environmental Justice- project activities would not disproportionately affect any population.

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Based on a review of EA, I have determined the proposed actions are not a major Federal action significantly affecting the quality of the human environment, individually or cumulatively with other actions in the general area. 40 CFR 1501.1(a)(4) and 1501.3(b)(1 and 2). In addition, the

project as disclosed and analyzed in the attached EA is consistent with current land management planning for the Project Area under the Grand Mesa, Uncompahgre and Gunnison National Forests Amended Land and Resources Management Plan (Forest Service 1991). I have considered short and long-term effects, beneficial and adverse effects, effects on public health and safety and effects that would violate Federal, State, Tribal or local law protecting the environment per 40 CFR 1501.3(b)(2). For purposes of this finding, the context and intensity factors in the previous 40 CFR § 1508.27 regulations were considered to frame my rationale as follows:

Context

The proposed project activities are site-specific and include wildlife habitat improvements and reduction of hazardous fuels within the Wildland Urban Interface. The lands affected include National Forest System (NFS) lands, BLM lands, and private lands in an area of west-central Colorado in Ouray County. Lands involved in proposed vegetation treatments include a small portion (<1.8% of acreage) of Ouray County. The project area is located in the immediate vicinity of similar activities that have occurred in the past and continue to occur. The EA has considered existing conditions, effects of proposed actions in both the short and long term for the following resources: vegetation, timber, fire, fuels, special status plants and wildlife, invasive species livestock grazing, soil, water, recreation, cultural resources, and land status (including roadless and citizen-proposed wilderness).

Intensity

Impacts that may be both beneficial and adverse. No significant effects on any resource area described above have been identified. Short-term effects on resources would be generally be associated with implementation of project activities, but design features for air quality, cultural resources, invasive species, prescribed fire, various treatments, range, roadless, soils, watershed, recreation, vegetation, wildlife will ensure these effects are minimized or negated. In the mid- and long-term treated areas would provide better quality and diversity of habitats for wildlife, reduced fire hazard and conditions would more closely approach historic range of variation/variability. Monitoring of cultural resources, fuels and prescribed burning, invasive species and range conditions to ensure that activities do not have negative effects in the short and/or long-term will also be required.

The degree to which the proposed action affects public health or safety. The main concern for public health and safety for the project activities is related to prescribed fire. The nearest private lands to proposed activities are partners in the project. Roads, generally on private lands, and natural and constructed fire breaks will help manage prescribed fire. Air permit, burn plans, and prescribed fire monitoring actions are required to ensure effects (such as smoke) are minimized. There is also a design feature for public involvement, notification, and coordination during the implementation phase. Prescribed fire is a very common activity on public and private lands in western Colorado and is expected to have nominal effect on public health and safety.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. Soil map units (EA Section.3.6) within the project area are not considered prime farmlands per USDA definitions nor is park land present. Water is generally intermittent or

seasonal and wetlands are not present. EA Section 3.6. Historic and cultural resources have to date not been identified that would result in something other than no adverse impact from proposed activities under the terms of programmatic agreements and consultation. EA Section 3.8. Other features of the area include the presence of many types of wildlife habitat for various species is the primary driver of the project and would not be negatively impacted in after implementation is complete. EA Sections 3.3 and 3.9.

The degree to which the effects on the quality of the human environment are likely to be highly controversial. The physical and biological effects of the proposed activities are well known and have been documented in many projects over several decades. Philosophical comments were brought forward regarding the appropriateness of certain treatment activities in Colorado Roadless Area or citizen-proposed wilderness area. The proposed activities are not prohibited by the Colorado Roadless Rule nor would they preclude Congressional designation of wilderness in the future. See analysis of roadless characteristics and wilderness characteristics (not to be confused with “wilderness character” that applies only to Congressionally designated areas) are addressed in EA Section 3.9

The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks. Numerous similar mechanical, hand and prescribed fire treatments have occurred in the immediate vicinity and on the GMUG, BLM and private lands over the past several decades obtaining desired results. The effects are well understood.

The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration. This action would not set precedent for other projects. All subsequent proposed projects would require separate, site-specific analysis.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Cumulative effects have been considered in the EA. No effects have been identified that when combined would be considered significant.

The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources. State Historic Preservation Office (SHPO) consultation had occurred in 2019. SHPO concurred with the Forest Service that if the proposed survey and minimization measures are implemented (i.e., avoidance and buffering of sites within the implementation areas), the recommended effect finding of no adverse effect [36 CFR 800.5(d)(1)] is appropriate for the project. In accordance with the Bark Beetle and Prescribed Fire Programmatic Agreements, the Forest Service will consider all recorded cultural resource sites as historic properties and will use the standard treatments and National Environmental Policy Act (NEPA) design features (Stipulation F and Appendix E of the Bark Beetle Programmatic Agreement and Section 4 of the prescribe Fire PA) to protect cultural resources. The Colorado SHPO will be consulted after the survey report is completed. If consultation with SHPO occurs prior to implementation, sites determined not eligible to the NRHP with SHPO concurrence will not be avoided during treatments

The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973. Two

threatened species are known or suspected to be present in the project area or have suitable habitat present. These include Mexican spotted owl (*Strix occidentalis lucida*) (MSO) and Canada lynx (*Lynx canadensis*). Neither species has designated critical habitat in the project area.

- The Environmental Conservation Online System considers the MSO as either occurring or believed to occur in Ouray County Colorado. However, the closest known MSO population is in Mesa Verde and the nearest recent historical known sighting (2003) is in the Dolores River Canyon, both on the Colorado Plateau EMU. Because MSO is not known to occur on the GMUG, adjacent lands including BLM, or private property there will be no effect to this species from any of the proposed activities.
- Up to 387 acres of suitable lynx habitat will be impacted by the proposal and count against the GMUG's caps established in the Southern Rockies Lynx Amendment. In addition, 27 acres of suitable habitat on BLM and 22 acres of lynx habitat on private land may be impacted. The proposed action may affect but is not likely to adversely affect the Canada lynx.
- Concurrence (Tails # 06E24100-21-I-0378) for this project was received from informal consultation with US Fish and Wildlife Service on June 24, 2021.

Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment. The proposed activities are in compliance with all Federal, State and local laws including, but not limited to, the Clean Air Act, Clean Water Act, Endangered Species Act, National Historic Preservation Act, National Forest Management Act, Federal Land Policy and Management Act, Colorado Roadless Rule, etc. No exceedances of any threshold or standard are proposed or anticipated. See Chapter 3 of EA.

ADMINISTRATIVE REVIEW (OBJECTION) OPPORTUNITIES

This draft decision is subject to a predecisional objection in accordance with the provisions of 36 CFR §218 subparts A and B. Objections must be filed with the reviewing officer in writing. All objections are available for public inspection during and after the objection process. Issues raised in objections must be based on previously submitted and timely, specific written comments regarding the proposed project or activity and attributed to the objector, unless the issue is based on new information that arose after the opportunities for comment on the Preliminary EA.

At a minimum, an objection must include the following: (1) Objector's name and address as defined in 36 CFR § 218.2, with a telephone number, if available; (2) Signature or other verification of authorship upon request (a scanned signature for electronic mail may be filed with the objection); (3) When multiple names are listed on an objection, identification of the lead objector as defined in 36 CFR § 218.2. Verification of the identity of the lead objector must be provided upon request or the reviewing officer will designate a lead objector as provided in 36 CFR § 218.5(d); (4) The name of the proposed project, the name and title of the responsible official, and the name(s) of the national forest(s) and/or ranger district(s) on which the proposed project will be implemented; (5) A description of those aspects of the proposed project addressed by the objection, including specific issues related to the proposed project; if applicable, how the objector believes the environmental analysis or draft decision specifically violates law,

regulation, or policy; suggested remedies that would resolve the objection; supporting reasons for the reviewing officer to consider; and (6) A statement that demonstrates the connection between Objector's prior specific written comments on the particular proposed project or activity and the content of the objection, unless the objection concerns an issue that arose after the designated opportunities for comment on the Revised Preliminary EA (i.e. after August 4, 2015). Incorporation of documents by reference is permitted only as provided for at 36 CFR § 218.8(b).

Objections, including attachments, must be filed (regular mail, delivery service or online) with the Reviewing Officer (see 36 CFR § 218.3 and §218.8) within 45 days of the publication of the legal notice in the *Montrose Daily Press*. The publication date of the legal notice in the *Montrose Daily Press* is the exclusive means for calculating the time to file an objection. Those wishing to object should not rely upon dates or timeframe information provided by any other source. Evidence of timely filing is described in 36 CFR § 218.9. Please submit objections to the Reviewing Officer at:

Mail or delivery:

Chad Stewart, Forest Supervisor/Reviewing Officer
Grand Mesa, Uncompahgre and Gunnison National Forests
2250 South Main St
Delta, CO 81646

Electronic objections must be filed online; attachments may be included in a variety of formats (such as pdf, plain text (.txt), rich text format (.rtf), or MSWord (.doc)) In cases where no identifiable name is attached to an electronic message, a verification of identity will be required. A scanned signature is one way to provide verification.

Online: <https://cara.ecosystem-management.org/Public//CommentInput?Project=58554>

Implementation Date

Implementation of this decision will not occur for a minimum of 50 days (45 day objection period opportunity and five day stay if no objection is received) following publication of the legal notice of objection in the *Montrose Daily Press*, Montrose, CO. If an objection is filed, the Reviewing Officer's response is due within 45 days (can be extended up to 30 more days at his discretion). Implementation may begin immediately after the final decision is signed. Given these constraints and pending timing limitations associated with contracting project activities, it is unlikely that activities will occur on the ground before field season 2022.

CONTACT

For additional information concerning this decision contact:

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To remain unsigned until final

Dana Gardunio
Ouray District Ranger

Date

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AGENDA ITEM #13

AGENDA ITEM #14