Carbon County Board of Health

October 6, 2022
12:00 pm – 1:30 pm
Commissioners Office

Board Members 2022

Carbon County Commissioners
PO Box 887
Red Lodge, MT 59068
406-446-1595
commissioners@co.carbon.mt.us

Scott C. Miller, Member
Bridger Commissioner

Scott Blain, Member
Joliet Commissioner

Bill E Bullock, Presiding Officer
Red Lodge Commissioner

Dick Nolan
At Large Member
dnolanmt@gmail.com

Becky Frank, DVM
At Large Member
nickandkeith@icloud.com

William Oley, MD
At Large Member
willoley@gmail.com

Stacie Warehime
At Large Member
shaneandstacie09@yahoo.com

Cyrina Allen
County Health Officer
cyrinaa@co.carbon.mt.us

Agenda

1.	Roll Call & Approval of Minutes	2 min
2.	New Business	20 min

a. Mail / Correspondence
b. Truck Wreck Protocol Review
c. Sanitarian Fees Revision
d. 5 East Side Rd. Variation Report
e. Ausen Variance Request and Permit
f. DPHHS Cooperative Agreement for Licensed Establishment Inspections

3.	Unfinished Business	2 min
4.	Department Reports	6 min

a. Sheriff
b. Attorney
c. Sanitarian
d. Public Health
e. Disaster and Emergency Services
f. Tobacco Prevention
g. Mental Health

5.	Board of Health Training DPHHS	60 min

Board of Health Meeting

April 7, 2022

Present: Scott Miller, Scott Blain, Bill Bullock, William Oley, Dick Nolan, Becky Frank, Rod Ostermiller, Cindy Swan, Erin Cross, Cyrina Allen,Katy Day, Angela Newell, Lori Kane, Mary Camron, Jeff Schmalz, Jason Mahoney, Barbara Krizek, and Robert Spoja

1. Nolan moved to approve minutes; Blain seconded; motion carried.

2. a. None

2.b. Public Health Officer (PHO) Backup and Designees. Allen would like a backup in case there is an incident where she needs to fill DES Role and recommends Public Health Director Erin Cross. Miller moved to appoint Erin Cross as Backup Public Health Officer; Nolan seconded; motion carried. Noted cannot find official documentation for Krizek being appointed as a designee since Allen's appointment as PHO. Blain moved to approve Barbara Krizek RS as the Public Health Officer's Designee for Licensed establishment inspections and business licenses approvals; Miller seconded; motion carried.

2.c. Interdepartmental / Interagency Coordination and emergency plan review and exercises. Swan noted good participation from Joliet EMS, for quarterly provider meetings, but would like to make the meetings more impactful to increase participation. One idea was to orient quarterly meetings around a current issue or to review emergency operations plans. Nolan emphasized the need to add a component of what value Public Health can add for providers to make time to participate. Oley agreed that using lessons learned from COVID for future potential incidents is a great way to keep up coordination. Cross noted many of the emergency plans also have a grant funding component and for future funding those plans need to be followed. Public Health would like to get the Board of Health more involved in building the foundation of the department. Nolan requested acronyms be better defined in Department reports.

2.d. Public Health Department Goals. Cross reviewed the goals: providing clinical services (vaccines, rural school support, maternal child health, and chronic disease and pain management); begin work on Community Health Needs Assessment; continuing community education; begin long term planning including the development of committees. Discussion regarding the BOH's role in developing the department. Newell noted per 50-2-116(3) MCA: (3) A local board of health may provide, implement, facilitate, or encourage other public health services and functions as considered reasonable and necessary.

Discussion of formation of Committees and BOH representatives:
i. Interdepartmental / Interagency Coordination –
ii. Launching Clinical Services - Nolan
iii. Community Health Needs Assessment - Bullock
iv. Long Term Strategic Planning - Miller
v. Department Sustainability - Blain

Swan discussed some of the health issues identified in past Community Health Needs Assessments completed by Beartooth Billings Clinic and the State of Montana (Alcohol and substance abuse, cancer, obesity, and mental health issues). Swan noted there are different requirements/needs for the Public Health Department's Needs Assessment, although many components of Beartooth's Assessment will be applicable for Public Health. Swan would like to setup focus groups to tap into isolated populations for

the Assessment. MSU Bozeman may be able to aid with data analysis and reporting. Nolan and Swan agree there is a significant overlap between the two Assements.

3.a. Mission Vision Review. Nolan asked what is meant by “fair and just access.” Allen noted the language was included to address the differences what services can be accessed by different populations. Krizek offered “universal access” as alternative language. Swan noted the desire to have some of the clinical ethical language included in the statement. Miller moved to approve the Mission and Vision Statement as presented; Blain seconded; Blain and Nolan discussed removing fair and just to simplify but ultimately did not have issue with leaving it in; motion carried.

4. a. Sheriff. Schmalz did not have anything to report.

4.b. Attorney. Spoja did not have anything to report.

4.c. Sanitarian. Krizek noted DEQ is very understaffed (currently at 60% staffing capacity) and have had 3 more staff members quit. Noted this will increase timeline for obtaining a septic permit or other DEQ permit to almost a year. Krizek is concerned that compliance may become more of an issue with the longer turnaround time. Newell reviewed County efforts to implement a land use complaint process and processes to enforce code violations. Discussion about what can be done to help folks come into compliance if they are going to move forward without a permit; Bullock cautioned against slippery slope of appearing to give unpermitted projects the County’s blessing. Discussion about influx of people and requests for vacation rental inspections. This has been on top of the significant increase in septic permit applications.

4.d. Public Health is focused on hiring and onboarding new employees. Nolan asked about vaccination rates especially Childhood vaccines asked if they could be included in future department reports.

4.e. Allen noted some truck rollovers had fluids going into waterways. Discussion about the Fire After Action Review. Allen noted the biggest finding was the challenge to developing a proper chain of command when so many agencies are involved in one incident for the initial attack. Allen also noted that following the Robertson Draw fire there are some concerns about the water supply for the Town of Bearcreek. Bearcreeks water spring boxes are on Mount Maurice and there are concerns that slope instability after the fire could pose a threat to the boxes. The County was given a Fire Management Assistance Grant (FMAG) declaration which may provide funding to help address and secure the Town’s water supply. Spoja noted the man who started the fire has pled guilty and sentencing will happen in the next month or so. The County Attorney’s office is gathering information regarding scope of personal property damage due to Robertson Draw Fire.

4.f. Camron noted she and Atherly continue to push out programs at the Boys & Girls Club regarding vaping for both nicotine and marijuana.

4.g. Camron noted her report outlines the prevention education programs. She is in the middle of a mental health education class and in two weeks will have a class with DSVS staff. Noted state funding for teaching and training on mental health first aid has shifted. Responsible Alcohol Sales and Service (RASS) rules have changed and Camron is hoping to push that out more trainings this spring. She has had good buy in from Red Lodge Mountain for their staff at both the Mountain and Golf Course; Camron encouraged elected officials and law enforcement to participate in a class. Nolan asked about COVID isolation effects on kids; Camron noted suicides overall are down, but believes more information needs

to be gathered. Swan noted from a provider standpoint the mental health issues she has seen are alarming and include: self-harming, issues with grades and in relationships, and verbalizing depression. Camron noted people have become more literate in early mental health interventions. Ostermiller noted the local office will be changing the Administrative Assistant position into a half-breed case manager / Admin. Hoping it will help get more consistent provider visits from patients. Regarding youth, Ostermiller noted they now have about 90 enrolled in their programs, but have a hard time finding providers especially for those under age 12. Hoping to work to partner with schools. Concerns with state hospital turning people out before they are ready; center's group home is full and has a long waiting list. Ostermiller encouraged County to pay attention to number of people in the communities that are on probation or parole. Ostermiller noted appointment wait times continue to grow; they are now out about 4 weeks and a lot of people get lost in the process. Blain noted center tracks therapist productivity level. Blain believes the case manager role has great potential to help people get the help they need. Blain noted there was an incident last night that engaged the Angel Program where those seeking treatment and turn in their paraphernalia and illicit substances may receive State paid treatment.

4.h. RLACF none.

Frank Noted there have been a couple of cases of avian influenza in Wyoming, wanted to make sure that is on Public Health's radar.

TRUCK WRECK LOCAL PROTOCOL

Distressed Foods & Other Consumer Products

resulting from a

Transportation Accident or Other Emergency

March 26th 2019

Based on the Montana Department of Public Health & Human Services Food & Consumer Safety Section "Guidelines for Handling Distressed Food, Drugs, and Cosmetics in Truck and Train Wrecks Emergency Response Procedures", September 5, 2008.

This guidance is applicable in any transportation accident involving food, drugs, cosmetics, or other consumer products. The purpose of this guidance is to protect public health and safety by preventing consumers from receiving contaminated foods, drugs, cosmetics and other consumer products.

Jurisdiction Information

This protocol is compiled for the jurisdiction of: **Carbon County**

Lead Registered Sanitarian: Cortney Lynde, SIT

Phone/Email: 406-446-1694 clynde@carboncomt.com

Signature & Date:___________________

Lead Registered Sanitarian: Travis West, RS

Phone/Email: 406-861-0885 travis@engineering-west.com

Signature & Date:___________________

Health Officer: **Dr. William George**

Phone/Email: 406-446-2345 wgeorge@beartoothbillingsclinic.org Signature & Date:

Board of Health Chairperson: Scott Blain, Board of Health Presiding Officer

Phone/Email: 406-446-1595 commissioners@co.carbon.mt.us

Signature & Date:_____________________

County Attorney: Alex Nixon

Phone/Email: 406-446-3300 anixon@carboncomt.com

Signature & Date:_____________________

Emergency Contact Information

Montana Dept of Public Health & Human Services (DPHHS):

Food & Consumer Safety (FCS) during work hours: 406-444-5306 or 406-444-2408

FCS Fax: 406-444-5055

Communicable Disease Control and Prevention Bureau 24/7: 406-444-0273

Carbon County Sheriff Department: 406-446-1234

Sanitarian On Call: Josh Juarez (Stillwater County) 406-322-8055

Preparation Planning

1) Determine 24/7 emergency sanitarian coverage for your jurisdiction. Single sanitarian jurisdictions are encouraged to make a memo of understanding with a neighboring sanitarian.

2) Provide the DPHHS "Guidance for Law Enforcement" to your Sheriff's office or other appropriate law enforcement agency. DPHHS public health emergency preparedness staff will relay the same document to Montana Highway Patrol (MHP).

3) Wrecker services and the responsible person usually make storage arrangements, but the local sanitarian should know of adequate holding facilities in their area.

4) Complete cover page 1. Staple Local Protocol, State Protocol and Report Forms.

5) Share your local protocol with emergency preparedness partners.

6) Assemble Go Kit containing local protocol, embargo tags, trailer seals, cell phone, camera, pens/pencils, thermometer and other recommended supplies. Possibilities include gear bag, first aid kit, cold weather gloves, nitrile gloves, GPS unit, reflective vest, reflective coat, dust mask, flashlight, overboots, hard hat, hearing protection, safety glasses, notepaper, and leatherman multi-tool.

Response

1) Communication. Law enforcement (MHP or a local officer) responds to the scene. Law enforcement notifies sheriff dispatch, then dispatch contacts the local Disaster Emergency Services (DES) and, ideally, the county sanitarian. Local DES calls the state DES. State DES calls the DPHHS duty officer, who then calls FCS. FCS will verify that a county sanitarian has been notified. The county sanitarian is encouraged to call FCS directly, to save time. If after hours, the health officer can call the 24/7 DPHHS duty officer. FCS also contacts other agencies as needed.

2) Authority and Responsibility. Almost always, the food products, drugs or cosmetics will be transported across county lines or interstate, making the state responsible for product control. The local health jurisdiction acts as the state's authorized agent.

If the products are meat or poultry, then FCS will contact USDA and/or MDOL. As directed by USDA, products will be moved to the nearest inspected facility.

The responsible person/entity is obligated to control their products. Shipping contracts will contain this information (examples are shipping companies, receivers, haulers or drivers). The wrecker service usually takes over traffic control responsibility when law enforcement leaves the scene.

The sanitarian should take steps to track the products and prevent pilferage. Official seals can be attached to containers if measures are needed to stop illegal salvaging or the load requires an inspection upon destination arrival. (Note: seals are available from FCS or law enforcement). This allows DPHHS to follow-up with the disposition of the sealed load in the receiving jurisdiction. Embargo or detainment of product is used if voluntary agreements cannot be obtained. Contact FCS for embargo authorization. If the situation needs crowd control, call law enforcement.

3) Documentation. Collect information as indicated on the "Truck Wreck Report" form. This is easiest to obtain from the responding law enforcement within the hour of the wreck. The wrecker service and responsible person usually make storage arrangements. A "Voluntary Disposal Agreement" or a "Voluntary Holding Agreement" form is completed by the sanitarian and the responsible person after an assessment of the products is made.

4) Damage Assessment. If damage is minimal, meaning the vehicle is not broken open, there is no obvious contamination, and there is no known benefit for a site visit, then products can be moved into a central location for observation and inspection. Pictures are very helpful in determining the extent of potential damage.

If the damage is not minimal, then a site visit is needed by the sanitarian.

5) Salvageability. Salvaging requires licensing as of 2004. Currently only one business is licensed –Montana Foodbank Network based in Missoula.

The products are salvageable, if all of the following are true:

a) The load did not contain chemicals that could cause contamination.
b) No products were exposed to dust, dirt, flies, fuels, oils, refrigerants, or other hazardous materials.
c) Potentially hazardous foods were not above 45°F for more than 2 hours.
d) Fresh produce is not wilted or frozen.

e) Containers are not damaged.
f) Soft plastic containers were not exposed to chemicals, fumes or moisture.
g) Cans are not dented along any seam or significantly dented elsewhere.

Damaged food may be suitable for animal feed, if approval is given by the MT Dept of Agriculture.

Disposal is necessary if the products are not salvageable or not suitable for animal feed. Often the responsible person chooses to dispose of the products on their own accord.

6) Completion. Fax completed wreck report and signed voluntary disposal or holding forms to FCS at 406-444-5055.

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Phone/Email: 406-446-1694, 406-425-4007 /

~~clynde@carboncomt.com~~ bkrizek@co.carbon.mt.us

Signature~~ & Date~~: ________________________________ Date: __________

~~**Lead Registered Sanitarian: Travis West, RS**~~

~~Phone/Email: 406-861-0885 travis@engineering-west.com~~

~~Signature & Date:____________________~~

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Signature: ________________________________ Date: __________

~~Signature & Date:~~

Board of Health Chairperson: ~~Scott Blain~~Bill E Bullock, Board of Health Presiding Officer

Phone/Email: 406-446-1595 /~~–~~ commissioners@co.carbon.mt.us

Signature: ________________________________ Date: __________

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County Attorney: Alex Nixon

Phone/Email: 406-446-3300~~ – ~~, 406-425-1871 /

anixon@~~carboncomt.com~~co.carbon.mt.us

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CARBON COUNTY ENVIRONMENTAL HEALTH
17 West 11th St.
PO Box 466
Red Lodge, Montana 59068
(406) 446-1694

ON-SITE WASTEWATER (SEPTIC) REVIEW FEE SCHEDULE

Revised September 1, 2022

PROJECT NAME : CC#

TYPE OF LOTS

	Unit	Unit Cost	Number of Units	Total (unit cost x number of units)
Subdivision Lot/Parcel	lot or parcel	**$160**		
Condo Unit – Trailer Court – RV Campground	unit / space	**$60**		

TYPE OF WASTEWATER SYSTEM

Existing systems	unit	**$90**		
New gravity fed system	drainfield	**$120**		
New dosed systems, elevated sand mound, ET systems, intermittent sand filter, ETA system, recirculating sand filter, recirculating trickling filter, aerobic treatment unit, nutrient removal, and whole house subsurface drip irrigation	design	**$240**		
	drainfield	**$60**		
New multiple user wastewater system (non-public)	unit	**Per Type Above**		
connection to system	lot/living unit	**$90**		

OTHER

Board of Health Variance	request	**$250**		
Variance Inspection Fee	inspection	**$150**		
Non-degradation review – non-significance determinations				
individual/shared	drainfield	**$70**		
multiple-user	lot/structure	**$40**		
Gray water reuse systems. This is a stand-alone fee and all gray water reuse systems will be reviewed at the unit cost.	unit	**$120**		
Septic Permit Extension Fee		**$100**		
Montana DEQ Certificate of Subdivision Approval (COSA) Application Review Fee	application	**$300**		

CARBON COUNTY CONSTRUCTION AUTHORIZATION, SEPTIC SYSTEM INSPECTION, AND OPERATING PERMIT (Applies to all applications, including Replacement systems)	**$200**		

TOTAL REVIEW FEE	

P.O. BOX 194 • COLUMBUS, MT 59019
ENGINEERING-WEST.COM • 406.322.1116

September 19, 2022

Barbara Krizek, REHS/RS
Carbon County Sanitarian
PO Box 466
Red Lodge, MT 59068

RE: COS 1609 RB
Tract 1-B 3rd Am
Carbon County
Board of Health Variance Request

Dear Ms. Krizek & Board of Health Members,

Tract 1-B 3rd amended of Certificate of Survey 1605 RB has a failing dainfield. The system has been replaced with an absorption bed system. The absorption bed system was placed 73 feet from Rock Creek. This area is very near the existing failing system.

The property boundaries have been changed from the original Certificate of Subdivision Approval. With this along with multiple easements on the property, and existing contours there is no room for a replacement system that will meet the 100' setback from surface water.

Non-degradation calculations and trigger value analysis are provided to prove that groundwater and surface waters are not adversely affected. Normally these calculations are not required for replacement systems that are not considered an increased source.

Waiver Requested

- Less than 100 feet from surface water

TABLE 1
SETBACK DISTANCES
(in feet)

From	To Sealed components (1) and other components (2)	To Absorption systems (3)
Public or multiple-user drinking water wells/springs	100	100
Individual and shared drinking water supply wells	50	100
Other wells (4)	50	100
Suction lines	50	100
Cisterns	25	50
Roadcuts, escarpments	10 (5)	25
Slopes > 35 percent (6)	10 (5)	25
Property boundaries (7)	10	10
Subsurface drains	10	10
Water mains (8)	10	10
Drainfields/sand mounds (3)	10	-
Foundation walls	10	10
Surface water, springs	50	100
Floodplains	--Sealed components - no setbacks (1) Other components - 100 (2)	100

(1) Sealed components include holding tanks, sealed pit privies, and the components addressed in Department Circular DEQ-4, Chapters 4 and 5. Holding tanks and sealed pit privies must be located at least ten feet outside the floodplain or any openings must be at least two feet above the floodplain elevation.

(2) Other components include the components addressed in Department Circular DEQ-4, Chapter 7.

(3) Absorption systems include the systems addressed in Department Circular DEQ-4, Chapters 6 and 8 subject to the limitations in ARM 17.36.916.

(4) Other wells include, but are not limited to, irrigation and stock watering, but do not include observation wells as addressed in Department Circular DEQ-4.

(5) Sewer lines and sewer mains may be located in roadways and on steep slopes if the lines and mains are safeguarded against damage.

(6) Down-gradient of the sealed component, other component, or drainfield/sand mound.

(7) Easements may be used to satisfy the setback to property boundaries.

(8) Sewer mains that cross water mains must be laid with a minimum vertical separation distance of 18 inches between the mains.

Per ARM 17.36.922 the local board of health may grant variances from the requirements in Chapter 900 and in Circular DEQ-4.

Thank you for considering this request.

If you have any questions, please feel free to contact me at jeremy@engineering-west.com or (406) 322-1116.

Sincerely,

Jeremy O. Eaton, PE

August 15, 2022

To: Barbara Krizek
Carbon County Environmental Health Department

From: Barbara Kingery, PE
RBK Consulting, LLC

Re: Variance Request - Ausen Elevated Sand Mound Septic Permit

Legal Description of Property:
S35, T04 S, R21 E
Ponderosa Estates Lot 21 COS 703

Address: 33 Bailey Road, Boyd, MT

Introduction

Steven and Deborah Ausen are requesting a variance from the Carbon County Board of Health that, if granted, would allow the construction of a new onsite wastewater treatment absorption system that is less than 4 feet of natural soil between the bottom of an elevated sand mound trench and seasonally high groundwater.

Background

The Ausens have an existing 2-bedroom house with unpermitted drainfield on Lot 21 of Ponderosa Estates (COS 703). This 10.04-acre parcel is not subject to the Sanitation Act and falls under Title 50 for septic permitting by Carbon County Board of Health. Rock Creek passes through the west side of the parcel and recently a LOMA issued to modify the previously defined FEMA floodplain. The existing subsurface drainfield is less than 100 feet from the new floodplain boundary and less than 100 feet from existing wells. Although no written permits can be found for the system, the previous owner stated a representative of the county health department visually inspected and verbally approved its location less than 100 feet from a well and less than 100 feet to the floodplain.

The Ausens would like to replace the existing house with a 3-bedroom main house and plumbed shop (4-bedroom total design flow) and abandon the existing drainfield. The new structures will be served by a sewer system that has been sized to serve both buildings that meets the horizontal setbacks to

existing wells and the floodplain and one that provides better effluent treatment than the existing unpermitted drainfield. A soil profile was excavated in the area of the proposed sewage treatment system on 5/13/2019 with groundwater observed at 60 inches. An observation pipe was installed, and groundwater monitoring occurred between May and July 2019 with a peak measurement on 6/1/19 at 32 inches below ground surface.

To maintain 48 inches between the bottom of the elevated sand mound trenches and seasonally high groundwater, the Ausens are requesting a permit for an elevated sand mound constructed with 16 inches of sand between the ground elevation and the bottom of the trench.

Since the nutrient load (nitrogen and phosphorus) for the existing two bedroom house is the same as the proposed four bedroom residential system, the replacement drainfield is not classified as a new or increased source and impacts to water quality are non- significant per ARM 17.30.

Applicable Regulation

We are requesting a variance from ARM 17.36. 914 (3) for less than 4 feet of vertical separation of natural soil and seasonally high groundwater.

ARM 17.36.914 (3) Wastewater treatment systems must be located to maximize the vertical separation distance from the bottom of the absorption trench to the seasonally high ground water level, bedrock, or other limiting layer, but under no circumstances may this vertical separation be less than four feet of natural soil.

Proposed Development

The lot will be used for a single 3-bedroom house with plumbed shop. The shop will not have a kitchen and is not considered a separate living unit. The design flow rate will be 350 gpd (4-bedroom residence). An elevated sand mound with 16 inches of sand above ground level will be used to create the necessary 48 inches of vertical distance between bottom of the trench and the observed 32 inches to seasonally high groundwater.

Discussion of ARM 17.36.922 Criteria

The board of health may grant a variance from a requirement only if it finds that all the criteria of ARM 17.36.922 are met. The variance request for a reduced setback between the proposed elevated sand mound location and surface water are addressed in **(bold)** below.

17.36.922 (a) granting the variance will not:

(i) contaminate any actual or potential drinking water supply;

- **Comment: The proposed location of the elevated sand mound is down gradient of the nearby drinking water supplies and contamination is unlikely due to groundwater flow direction.**

(ii) cause a public health hazard as a result of access to insects, rodents, or other possible carriers of disease to humans;

- **Comment: The proposed elevated sand mound will be constructed in accordance with Circular DEQ 4 and will not cause a public health hazard as a result of access to insects, rodents, or other possible carriers of disease to humans.**

(iii) cause a public health hazard by being accessible to persons or animals;

- **Comment: The proposed elevated sand mound will be constructed in accordance with Circular DEQ 4 and will not cause a public health hazard by being accessible to persons or animals.**

(iv) violate any law or regulation governing water pollution or wastewater treatment and disposal, including the rules contained in this subchapter except for the rule that the variance is requested from;

- **Comment: The proposed elevated sand mound is not an increased source as defined in ARM 17.30.702, meets current standards for the Water Quality Act (non-degradation limits) and does not violate any law or regulation governing water pollution or wastewater treatment and disposal.**

(v) pollute or contaminate state waters, in violation of 75-5-605, MCA;

- **Comment: The proposed elevated sand mound replaces an existing source that predate the Water Quality Act (1993), will be constructed in accordance with Circular DEQ 4 and will not pollute or contaminate state waters, in violation of 75-5-605, MCA.**

(vi) degrade state waters unless authorized pursuant to 75-5-303, MCA; or

- **Comment: The proposed elevated sand mound will be sized at a design flow rate of 350 gpd and is not subject to a groundwater discharge permit. It is not considered a new or increased source and will not degrade state waters unless authorized pursuant to 75-5-303, MCA.**

(vii) cause a nuisance due to odor, unsightly appearance, or other aesthetic consideration;

- **Comment: The proposed elevated sand mound will be constructed in accordance with Circular DEQ 4 and will not cause a nuisance due to odor, unsightly appearance, or other aesthetic consideration.**

(b) compliance with the requirement from which the variance is requested would result in undue hardship to the applicant;

- **Comment: The hydrological conditions of this lot makes construction of a subsurface wastewater treatment system with greater than 48 inches of natural ground vertical separation difficult. Groundwater monitoring showed a peak elevation at 32 inches. To meet the intent of the rule, 16 inches of sand below the trench bottom and groundwater will be incorporated into the system design. Compliance with the regulations would mean plans for an improved treatment system could not be constructed resulting in undue hardship to the applicant.**

(c) the variance is necessary to address extraordinary conditions that the applicant could not reasonably have prevented;

- **Comment: The applicant intends to replace an existing, unpermitted sewage treatment systems with an elevated sand mound. Since the lot is currently developed, the applicant would have anticipated like development could occur at this site. Depth to seasonally high groundwater is beyond the control of the applicant and variance is necessary to address extraordinary conditions that the applicant could not reasonably have prevented.**

(ci) no alternatives that comply with the requirement are reasonably feasible, and;

- **Comment: The lot is flat and due to physical constraints; the applicant is not able to construct an onsite wastewater treatment system that is meets vertical separation distance to seasonally high groundwater. No alternatives that comply with the requirement are reasonably feasible.**

(cii) the variance requested is not more than the minimum needed to address the extraordinary conditions

- **Comment: The location of the propose elevated sand mound has been selected to meet current horizontal set back distances to wells, surface water and floodplains. It is not more than the minimum needed to address the extraordinary conditions with this site.**

Conclusion

The lot has an existing structure that discharges waste to an unpermitted sewage treatment system. The existing system does not meet minimum horizontal setbacks between wells and the floodplain.

The system will meet minimum horizontal setbacks and the new drainfield will provide better treatment than the existing system. The nutrient discharge from the elevated sand mound is considered non-significant. The new system meets all the criteria of ARM 17.36.922 and it is recommended that you approve the variance.

CARBON COUNTY SANITARIAN
17 West 11th St.
PO Box 466
Red Lodge, Montana 59068
(406) 446-1694

ON-SITE WASTEWATER (SEPTIC) REVIEW FEE SCHEDULE

Revised February 3, 2022

PROJECT NAME : Ausen Variance CC#

TYPE OF LOTS

	Unit	Unit Cost	Number of Units	Total (unit cost x number of units)
Subdivision Lot/Parcel	lot or parcel	$160	1	160
Condo Unit – Trailer Court – RV Campground	unit / space	$60		

TYPE OF WASTEWATER SYSTEM

Existing systems	unit	$90		
New gravity fed system	drainfield	$120		
New dosed systems, elevated sand mound, ET systems,	design	$240	1	240
intermittent sand filter, ETA system, recirculating sand filter,	drainfield	$60	1	60
recirculating trickling filter, aerobic treatment unit, nutrient removal, and whole house subsurface drip irrigation				
New multiple user wastewater system (non-public)	unit	Per Type Above		
connection to system	lot/living unit	$90		

OTHER

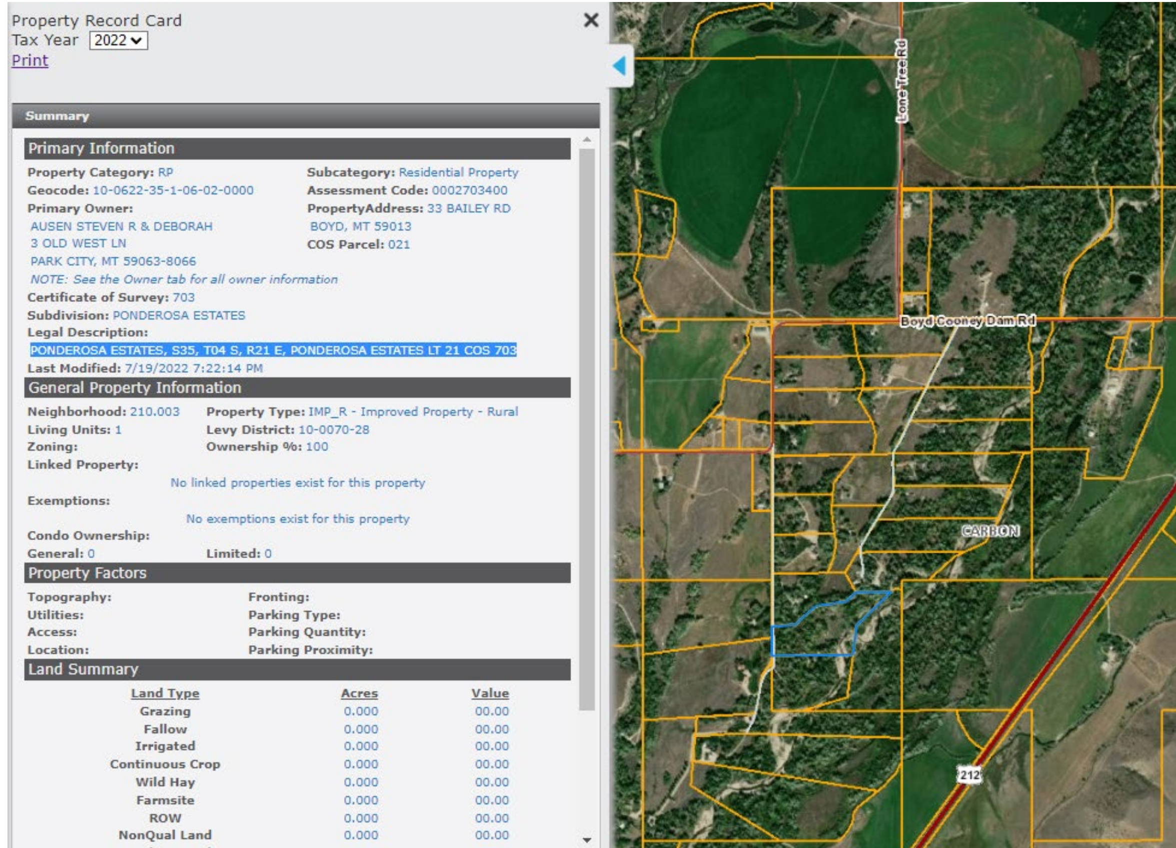
Board of Health Variance	request	$250	1	250
Variance Inspection Fee	inspection	$150	1	150
Non-degradation review – non-significance determinations				
individual/shared	drainfield	$70	1	70
multiple-user	lot/structure	$40		
Gray water reuse systems. This is a stand-alone fee and all gray water reuse systems will be reviewed at the unit cost.	unit	$120		
Permit Extension Fee		$100		

CARBON COUNTY CONSTRUCTION AUTHORIZATION, SEPTIC SYSTEM INSPECTION, AND OPERATING PERMIT (Applies to all applications, including Replacement systems)	$200	1	200

TOTAL REVIEW FEE	1130.

Cadastral

Ausen Septic Permit
33 Bailey Road, Boyd MT
Geocode: 10-0622-35-1-06-02-0000
S35, T04 S, R21 E
Ponderosa Estates Lot 21 COS 703



Property Record Card
Tax Year 2022
Print

Summary

Primary Information

Property Category: RP
Subcategory: Residential Property
Geocode: 10-0622-35-1-06-02-0000
Assessment Code: 0002703400
Primary Owner:
AUSEN STEVEN R & DEBORAH
3 OLD WEST LN
PARK CITY, MT 59063-8066
PropertyAddress: 33 BAILEY RD
BOYD, MT 59013
COS Parcel: 021
NOTE: See the Owner tab for all owner information
Certificate of Survey: 703
Subdivision: PONDEROSA ESTATES
Legal Description:
PONDEROSA ESTATES, S35, T04 S, R21 E, PONDEROSA ESTATES LT 21 COS 703
Last Modified: 7/19/2022 7:22:14 PM

General Property Information

Neighborhood: 210.003
Property Type: IMP_R - Improved Property - Rural
Living Units: 1
Levy District: 10-0070-28
Zoning:
Ownership %: 100
Linked Property:
No linked properties exist for this property
Exemptions:
No exemptions exist for this property
Condo Ownership:
General: 0
Limited: 0

Property Factors

Topography:
Fronting:
Utilities:
Parking Type:
Access:
Parking Quantity:
Location:
Parking Proximity:

Land Summary

Land Type	Acres	Value
Grazing	0.000	00.00
Fallow	0.000	00.00
Irrigated	0.000	00.00
Continuous Crop	0.000	00.00
Wild Hay	0.000	00.00
Farmsite	0.000	00.00
ROW	0.000	00.00
NonQual Land	0.000	00.00

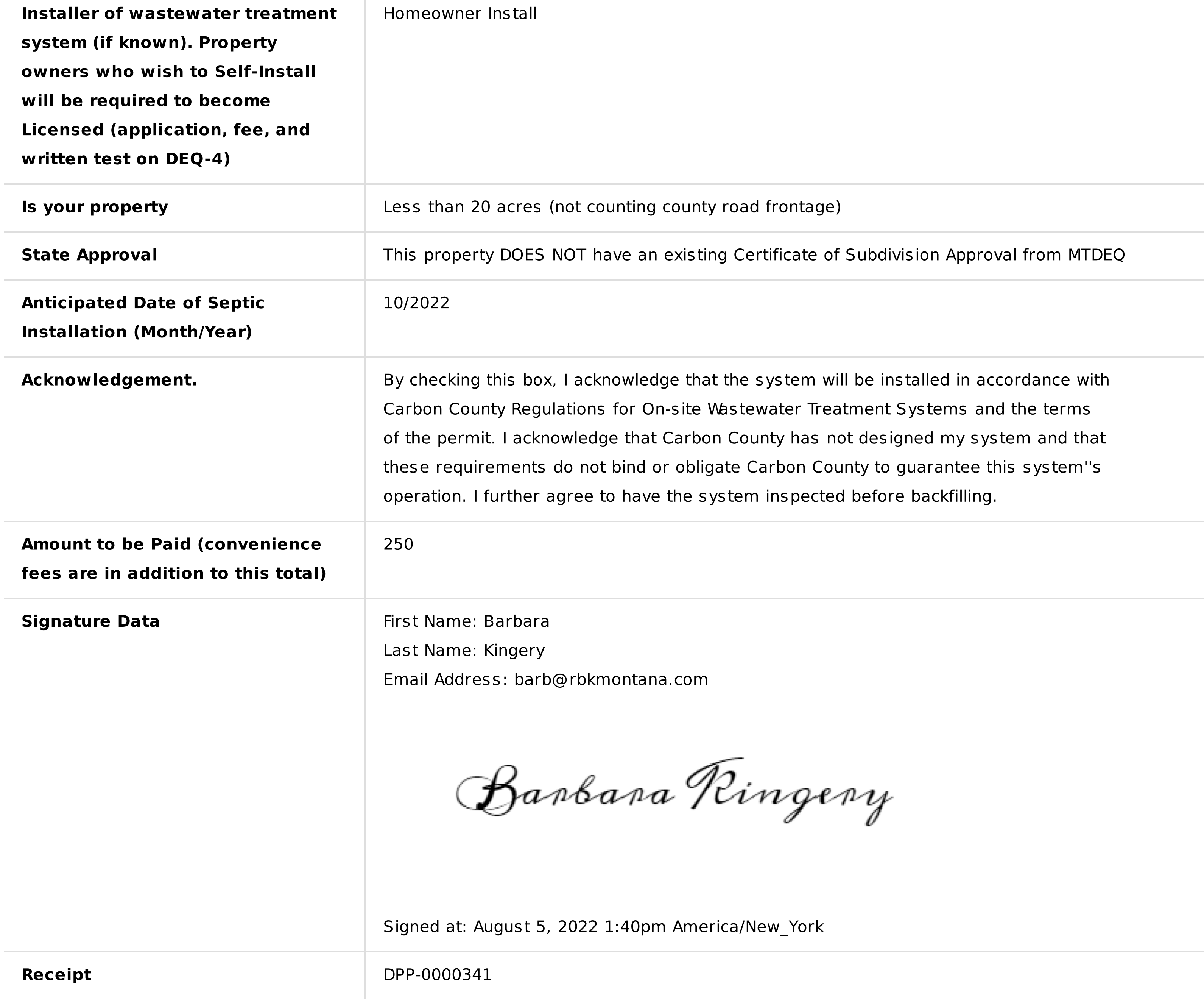
Development Permit Package

Carbon County Montana

Submitted On:
August 5, 2022 1:10pm
America/New_York

What permits are you applying for today?	Group 1 Development On-Site Wastewater Treatment System
Applicant (Property Owner) Full Name	STEVEN R & DEBORAH AUSEN
Business Name (If Applicable)	
Applicant Mailing Address	3 OLD WEST LN PARK CITY MT 59063-8066
Applicant (Property Owner) Email	debausen@aol.com
Applicant (Property Owner) Primary Phone Number	406-697-1038
Type of Primary Phone	Cellular
Cellular provider for Primary Phone	Verizon
Applicant Secondary Phone Number	
Preferred Contact Method	Email
How would you like to receive your permits?	Digital copy (email)
Do you own, rent, or lease the property?	Own
Are you applying on behalf of a client?	Yes
Builder / Contractor Name	Barbara Kingery /RBK Consulting, LLC
Builder / Contractor Email	barb@rbkmontana.com
Builder / Contractor Phone Number	406-417-1281
Certificate of Survey or Plat Number (include lot or tract number if applicable)	PONDEROSA ESTATES COS 703 Lot 21
Has a physical address been assigned to the property?	Yes
Physical address of property	33 BAILEY RD, BOYD, MT 59013
Legal Description of property if known	35 4S 21E

Access to Property	Existing
Current Property Use	residential
Property Acreage	10.04
Proposed Use / Development to Property	Single Family Residential
Is there surface water on the property?	Yes
What type of surface water exists on property?	River / Creek
Is the proposed development located in in the floodway or floodplain?	No
Is the proposed development located in Sage Grouse habitat?	No
Are there covenants and/or restrictions on the property that may prohibit the proposed development?	No
Are there any road, ditch, utility or other easements that exist on the property?	No
How will the property be accessed?	Driveway from Bailey Rd
Are there sanitary restrictions on the property that would prevent the proposed development?	No
How will you dispose of wastewater?	Septic
What will be the potable water source for the property?	Well
List the proposed setbacks from property lines and open water sources (if applicable). The required setbacks from property lines are 30' from the front, 20' from the rear, and 10' from the sides?	House and shop >130 ft from property line and >250'' from surface water (Rock Creek)
Property Site Plan Submission	Email / Mail my Property Site Plan at a later date
System Type	Repair/Replace Existing System
Number of bedrooms (an unfinished basement is an additional bedroom); or estimated wastewater flow (gpd)	4



Installer of wastewater treatment system (if known). Property owners who wish to Self-Install will be required to become Licensed (application, fee, and written test on DEQ-4)	Homeowner Install
Is your property	Less than 20 acres (not counting county road frontage)
State Approval	This property DOES NOT have an existing Certificate of Subdivision Approval from MTDEQ
Anticipated Date of Septic Installation (Month/Year)	10/2022
Acknowledgement.	By checking this box, I acknowledge that the system will be installed in accordance with Carbon County Regulations for On-site Wastewater Treatment Systems and the terms of the permit. I acknowledge that Carbon County has not designed my system and that these requirements do not bind or obligate Carbon County to guarantee this system''s operation. I further agree to have the system inspected before backfilling.
Amount to be Paid (convenience fees are in addition to this total)	250
Signature Data	First Name: Barbara Last Name: Kingery Email Address: barb@rbkmontana.com Barbara Kingery Signed at: August 5, 2022 1:40pm America/New_York
Receipt	DPP-0000341

Existing Structure
to be removed

Existing septic system
to be abandoned.

Sampled Well

Non-potable well

Non-potable well

New 3 bed
house with
shop (4-bed
design flow)

Bailey Rd

Groundwater
Flow
Direction
based on topography

Soil Profile
and
Monitoring
Well

<3%

Proposed 2,000 Gal
combination Tank
with 1,500 Gal Septic
chamber and 500 Gal
dose chamber

Floodplain
Boundary
per LOMA
Case No.
18-08-0373A

Lot 21
COS 703
10.04 Acres

30 ft x 61 ft Elevated
Sand Mound

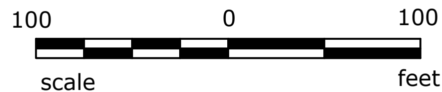
Replacement Area
on Same Footprint
as Primary

No Mixing
Zone- Mound
Replaces a
pre-1993
source

100 ft
Setback to
Floodplain

Rock
Creek

RBK Consulting, LLC
PO Box 1792
Helena, MT 59624
406-417-1281



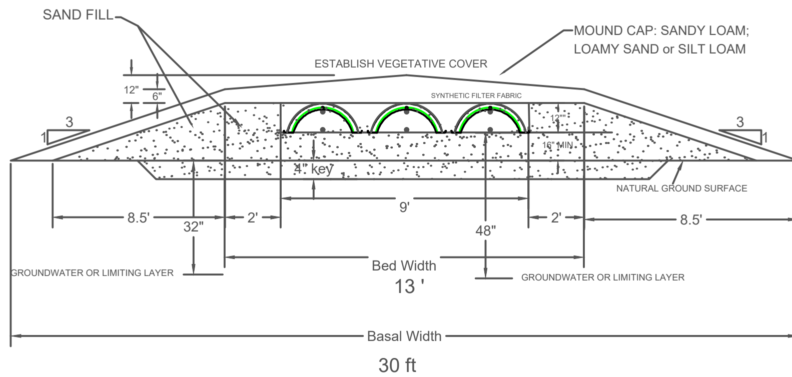
Ausen Permit - 33 Bailey Road, Boyd MT

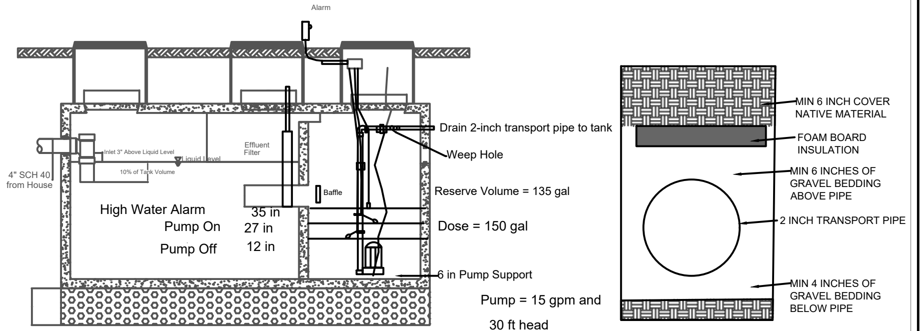
Lot Layout

FIGURE NO.

2

Profile- Elevated Sand Mound

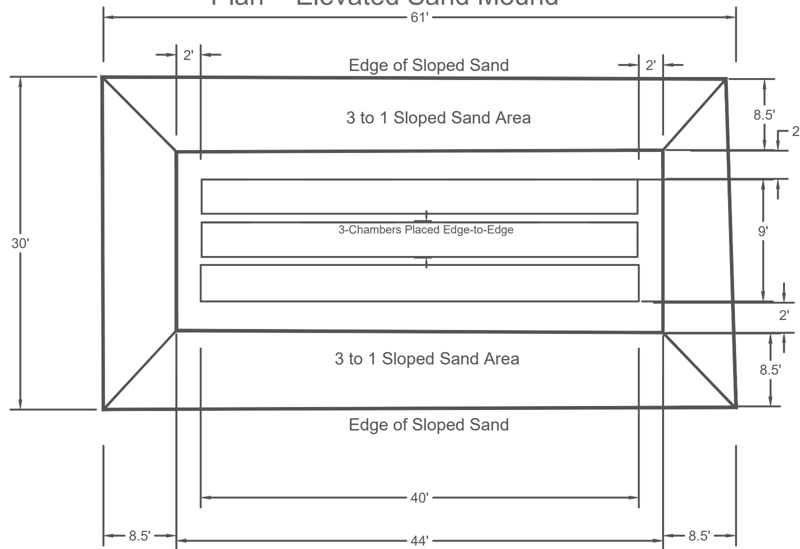




2,000 gallon Combined Concrete Tank Detail
1,500 gallon Septic Tank and 500 gallon Dose Tank. Thermoplastic or other tanks approved by Carbon County may be used with ballast.

2-in Transport Pipe Detail

Plan - Elevated Sand Mound



Sand Mound Material Specifications:

Sand must be washed free of silts and clays.

The in-place fill material must meet one of the following specifications:

A. ASTM C-33 for fine aggregate, with a maximum of 2 percent passing the No. 100 sieve, or

B. Fit within the following particle size distribution:

Sieve	Particle Size (mm)	Percent Passing
3/8 in	9.50	100
No. 4	4.75	95 to 100
No. 8	2.36	80 to 100
No. 16	1.18	45 to 85
No. 30	0.60	20 to 60
No. 50	0.30	10 to 30
No. 100	0.15	0 to 2

C. Have an effective size (D10) of 0.15 mm to 0.30 mm with a Uniformity Coefficient (D60/D10) of 4 to 6, with a maximum of 3 percent passing the No. 100 sieve.

Drain rock must be washed and range in size from ¾ to 2-1/2 inches.

RBK Consulting, LLC
PO Box 1792
Helena, MT 59624
406-417-1281

Ausen Permit- 33 Baily Rd, Boyd, MT

SEWAGE TREATMENT DESIGN

FIGURE NO.

2

NON-DEGRADATION AND WASTEWATER DESIGN

Project Name: Ausen Permit
Variance Request
Carbon County

Project Synopsis: This site is located at 33 Bailey Road, Boyd MT and is described as Lot 21 of Ponderosa Estates. The lot is 10.4 acres but not subject to DEQ review. An existing cabin with unpermitted drainfield exists on the parcel. The owners would like to replace the cabin with a 3-bedroom home and shop. The shop will be plumbed for a bathroom but will not have a kitchen and is not considered a second living unit.

Non-Degradation: The new subsurface treatment system for this parcel is not subject to the non-degradation requirements for Montana; non-point sources that discharged prior to April 29, 1993

are not considered new or increased sources in accordance with ARM 17.30.702(17). According to Cadastral, the existing 2-bedroom house has an estimated construction date of 1900 with an assumed wastewater treatment system that predates April 29, 1993. The non-degradation flow rate is 200 gpd for systems between 2-5 bedrooms. Because the new system will not be increasing beyond 5 bedrooms, the flow rate for the new system is comparable to the existing system. Additionally, the new system will be farther from sensitive receptors (Rock Creek, wells, etc.) than the existing system.

Circular DEQ-4 Design Flow for 3-bedroom living unit with plumbed shop:

350 gpd

Soil Loading Rates:

NRCS Soils Alluvial Land

Typical Soil Profile: 8-60 inches Very gravelly loamy coarse sand (0.8 gpd/ft2)

Onsite Soil Profile (observed 5/13/2019):

0-12 inches Loam
12-60 inches Sandy Loam (0.6 gpf/ft2)
60 inches Groundwater

Minimum ESM Size:

Minimum bed size based on sand loading rate:

Min = 350 gpd/0.8 gpd/ft2 = 437.5 ft2

Minimum basal size based on sandy loam loading rate:

NON-DEGRADATION AND WASTEWATER DESIGN

Project Name: Ausen Permit
Variance Request
Carbon County

Project Synopsis: This site is located at 33 Bailey Road, Boyd MT and is described as Lot 21 of Ponderosa Estates. The lot is 10.4 acres but not subject to DEQ review. An existing cabin with unpermitted drainfield exists on the parcel. The owners would like to replace the cabin with a 3-bedroom home and shop. The shop will be plumbed for a bathroom but will not have a kitchen and is not considered a second living unit.

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Onsite Soil Profile (observed 5/13/2019):

0-12 inches Loam
12-60 inches Sandy Loam (0.6 gpf/ft2)
60 inches Groundwater

Minimum ESM Size:

Minimum bed size based on sand loading rate:

Min = 350 gpd/0.8 gpd/ft2 = 437.5 ft2

Minimum basal size based on sandy loam loading rate:

Min = 350 gpd/0.6 gpd/ft2 = 583.3 ft2

Distribution System of Mound:

[437.5 ft2/3 ft wide trenches] x 0.75 for use of chambers = 109.37 lf

3-40 ft long chambers

Bed Design:

438 ft2 of bed required (sand loading rate)

Bed width needs to be 1/3 length

Bed width minimum = 12.08 ft, Bed length minimum = 36.25 ft

Mound Dimensions:

Height of Mound:

Min Depth to Groundwater below bottom of trench = 48 inches

Water = 32 inches

48 in – 32 in = 16 in of sand needed above ground elevation

Chamber height= 12 inches

Soil Cover (Loamy Sand/Silty Loam) = 6 inches

Total height above ground = 16 in sand + 12 in chamber+ 6 in soil cover = 34 in

Amount added to basal area due to 3:1 side slope:

34 in high x 3 (side slope) = 102 in (8.5 ft) added each side of bed

Length = 40 ft long+ 2 ft each side =44 ft long total

Width of Mound:

Width = 3 lengths of chamber side to side x 3 ft wide chambers + 2 ft each side = 13 ft wide

Basal area = sand bed + slope

Length = 44 ft + 8.5 ft +8.5 ft = 61 ft

Width = 13 ft +8.5 ft +8.5 ft = 30 ft

Check Mound size:

Compare bed size length to width (length needs to be 3 times longer than width):

Needed Bed Design Width = 13 ft wide x 3 times = 39 ft30

Designed Bed Design Length = 40 ft > 39 ft ok

Compare basal size based on Sand Loading Rate to basal size needed for Soil Loading Rate:

61 ft x 30 ft = 1830 ft2 >583 ft2 ok

Slope Across Drainfield: <3%

Replacement Area: On Same footprint

Setbacks: >10 ft from property lines
>100 ft to surface water
>100 ft to well

Primary Treatment: 1500 gal septic tank with effluent filter

Dose Tank: 500 gal

Design: Designed and Constructed in Accordance with DEQ 4

Transport Pipe		
Pipe Diameter	2	(inches)
Pipe Length	40	(feet)
Pipe Volume	6.5	(gallons)
Manifold Pipe		
Pipe Diameter	2	(inches)
Pipe Length	15	(feet)
Pipe Volume	2.4	(gallons)
Laterals		
Pipe Diameter	1.61	(inches)
Pipe Length	64	(feet)
Pipe Volume	6.8	(gallons)
# of Laterals	5	
Total Lateral Volume	33.8	(gallons)
Total Volume	**42.8**	**(gallons)**
7.48052	gal/ft3	

Flow in Laterals	
# of Laterals	2
# of Orifices	13
Orifice Spacing	5
Diameter of opening	1/8
Manifold to 1st Orifice	1

Dose Volume using Floats		
Minimum Volume	178.2	(gallons)
Recommended	347.4	(gallons)
Proposed Volume	180	(gallons)
Dose Tank Volume Sizing		
Daily Flow	765	(gpd)
Minimum Volume	369.4	(gallons)
Proposed Volume	1000	(gallons)

Dose Tank Dimensions		
Usable Volume	500	(gallons)
Gallons/foot	125	(gal/ft)
Gallons/inch	10.41667	(gal/inch)
Pump On	12	(inches)
Pump Off	21	(inches)
Volume of Dose	180	(gallons)
Outlet	48	(inches)
High Level Alarm	25	(inches)
Reserve Storage	240	(gallons)
Septic Tank Sizing		
Min. Septic Tank Size	1912.5	(gallons)
Proposed Size	2000	(gallons)

Flow in Manifold		
qmanifold	0.007	(cfs)
Length	15	(feet)
# of T's	4	
# of 90° Bends	2	
Effective Length	35	(feet)
Head Loss	0.0092	(feet)

Calculated Head Loss			
	Required Head	5	
	Laterals	0.02	
	Manifold	0.01	
	Force Main	0.3	
	Elevation	20	
	Discharge Assembly	1	
	Total Required Head	**26.33**	(feet)
	Design Flow	**9.07**	(gpm)

Flow Calcs		
Design Flow	30.00	(gpm)
Time	6.00	(mins)
Variation	1.28	(%)

Proposed Pump: capable of 15 gpm at 30 ft of head - Orenco PED 2005, 3005 or equivalent

Size Pump For

Design Flow Rate (gpm) **11.7**

Total Dynamic Head (feet) **25.8**

Choose Pumps

- ☐ PI10 50Hz HH Effluent
- ☐ PI30 50Hz HH Effluent
- ☐ PI50 50Hz HH Effluent
- ☐ PFEF-B Effluent
- ☐ PFSW Sewage
- ☐ PFSW-B Sewage
- ☐ PSFWG200
- ☐ PKP350 Effluent
- ☐ PED 10
- ☑ PED 20, PED 30
- --- Discontinued Pumps ---
- ☐ P10 HH Effluent
- ☐ P20 HH Effluent
- ☐ P30 HH Effluent
- ☐ P50 HH Effluent
- ☐ P30, P50 2-5hp
- ☐ PA HH Effluent

Legend

System Curve:

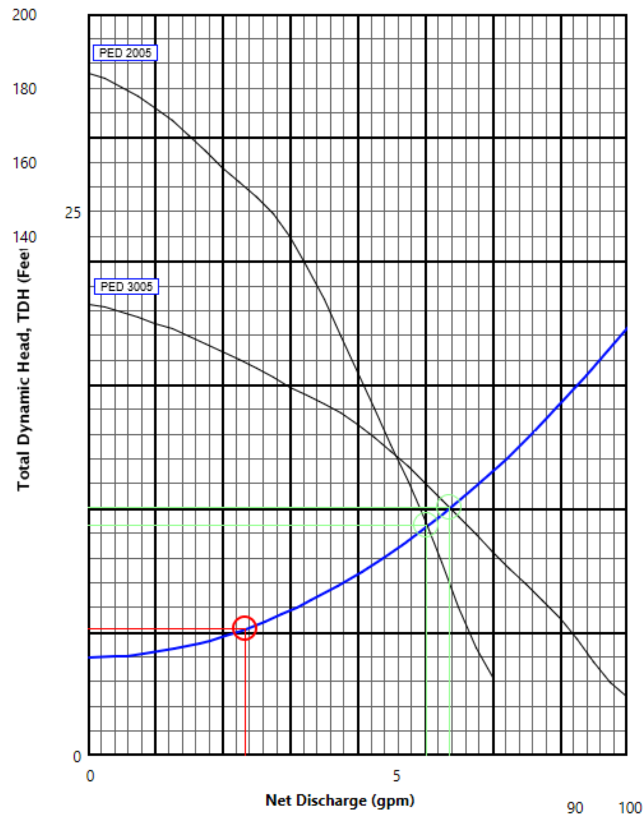
Pump Curve:

Pump Optimal Range:

Curve Intersection:

Design Point:

Pump Spec:



Pump Description

PED 2005
1/2HP, 115V 1Ø

PED 3005
1/2HP, 115V 1Ø

PED 2005
1/2HP, 115V 1Ø

PED 3005
1/2HP, 115V 1Ø

Find Pumps

GPM: 15

TDH: 30 + %

Find Clear

10

703

CERTIFICATE OF SURVEY NO. ____

LOCATED IN THE W1/2 SW1/4, SEC. 25, E1/2 SE 1/4, SEC. 26, NE1/4 NE1/4, SEC. 35, T4S, R21E, M.P.M.

CARBON COUNTY, MONTANA

PONDEROSA ESTATES

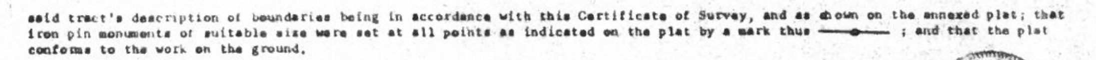
JOHN & LESLIE ZUCK

CERTIFICATE OF SURVEY

STATE OF MONTANA)
County of Carbon) ss

THIS IS TO CERTIFY, that I, LeRoy D. Zuck, Registered Professional Engineer and Land Surveyor, Montana Registration No. 1271ES, being first duly sworn, depose and say that during the month of March, 1973, I supervised the survey of a tract of land in accordance with the request of the owners thereof, and in conformity with the provisions of Chapter 6, Title 11-601 to 11-606, inclusive, Revised Codes of the State of Montana, 1947, said tract being located in the E½ SE ¼, Section 26, the W½ SW¼, Section 25, and the NE¼ NE¼, Section 35, all in T.4 S., R.21 E., M.P.M., Carbon County, Montana, and more particulary described as follows, to wit:

BEGINNING at the West ¼ Corner of Section 25, T.4 S, R.21 E., M.P.M., thence N. 89° 56' 00" E. on and along the midsection line of said Section 25 a distance of 1307.23 feet to the N.E. Corner of the W½ SW¼ of said Section 25, thence S 00° 20' 18" W a distance of 2625.07 feet to the S.E. Corner of the W½ SW¼ of said Section 25, thence N 89° 37' 00" W on and along the south line of said Section 25 a distance of 1313.51 feet to the S.W. Corner of said Section 25 and the N.E. Corner of Section 35, T.4 S., R.21 E., M.P.M., thence S 00° 27' 25" E on and along the east line of said Section 35 a distance of 1356.39 feet to the S.E. Corner of the NE¼ NE¼ of said Section 35, thence N 89° 30' 00" W a distance of 1322.80 feet to the S.W. Corner of the NE¼ NW¼ of said Section 35, thence N 00° 16' 05" E a distance of 1357.09 feet to the N.W. Corner of the NE¼ NE¼ of said Section 35 and the S.W. Corner of the E½ SE¼ of Section 26, T.4 S., R.21 E., M.P.M., thence N 00° 24' 19" E a distance of 2626.78 feet to the N.W. Corner of said E½ SE¼, Section 26, thence N 88° 56' 50" W on and along the midsection line of said Section 26 a distance of 1322.00 feet to the POINT OF BEGINNING, containing in all 199.363 acres,

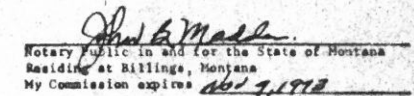


said tract's description of boundaries being in accordance with this Certificate of Survey, and as shown on the annexed plat; that iron pin monuments of suitable size were set at all points as indicated on the plat by a mark thus ——●—— ; and that the plat conforms to the work on the ground.

LeRoy D. Zuck, Montana Registration No. 1271ES

STATE OF MONTANA)
County of Yellowstone) ss

Subscribed and sworn to before me, a Notary Public in and for the State of Montana, this 19th day of April, 1973.



Notary Public in and for the State of Montana
Residing at Billings, Montana
My Commission expires Nov 7, 1973

NOTICE OF APPROVAL

STATE OF MONTANA)
County of Carbon) ss

The above annexed plat has been approved for filing by the Red Lodge - Carbon County, City-County Planning Board, and conform to the requirements or recommendations of this Board. Dated this ___ day of ___________, 1973.

Chairman   Secretary

CERTIFICATE OF APPROVAL

STATE OF MONTANA)
County of Carbon) ss

WE HEREBY CERTIFY that we have examined the above Certificate of Survey, and find that said plat conforms with the laws of the State of Montana. It is therefore approved and accepted.

IN WITNESS WHEREOF, we have set our hands and affixed the Seal of Carbon County, Montana this ___ day of _________, 1973.

BOARD OF COUNTY COMMISSIONERS,
Carbon County, Montana

Chairman

STATE OF MONTANA)
County of Carbon) ss
I HEREBY CERTIFY that the above Certificate of Survey was filed for record in my office on the ___ day of _____, 1973 at ___o'clock, ______M.

COUNTY CLERK & RECORDER
Carbon County, Montana

Property Record Card

Summary

Primary Information

Property Category: RP
Subcategory: Residential Property
Geocode: 10-0622-35-1-06-02-0000
Assessment Code: 0002703400
Primary Owner:
AUSEN STEVEN R & DEBORAH
3 OLD WEST LN
PARK CITY, MT 59063-8066
NOTE: See the Owner tab for all owner information
PropertyAddress: 33 BAILEY RD
BOYD, MT 59013
COS Parcel: 021
Certificate of Survey: 703
Subdivision: PONDEROSA ESTATES
Legal Description:
PONDEROSA ESTATES, S35, T04 S, R21 E, PONDEROSA ESTATES LT 21 COS 703
Last Modified: 7/11/2019 1:28:25 PM

General Property Information

Neighborhood: 210.003
Property Type: IMP_R - Improved Property - Rural
Living Units: 1
Levy District: 10-0070-28
Zoning:
Ownership %: 100
Linked Property:

No linked properties exist for this property

Exemptions:

No exemptions exist for this property

Condo Ownership:
General: 0
Limited: 0

Property Factors

Topography: 1
Fronting: 4 - Residential Street
Utilities: 7, 8
Parking Type:
Access: 2
Parking Quantity:
Location: 0 - Rural Land
Parking Proximity:

Land Summary

Land Type	Acres	Value
Grazing	0.000	00.00
Fallow	0.000	00.00
Irrigated	0.000	00.00
Continuous Crop	0.000	00.00
Wild Hay	0.000	00.00
Farmsite	0.000	00.00
ROW	0.000	00.00

Federal Emergency Management Agency

Washington, D.C. 20472

January 31, 2018

MRS. DEB AUSEN
INTERSTATE ENGINEERING, INC.
33 BAILEY ROAD
BOYD, MT 59013

CASE NO.: 18-08-0373A
COMMUNITY: CARBON COUNTY, MONTANA (UNINCORPORATED AREAS)
COMMUNITY NO.: 300139

DEAR MRS. AUSEN:

This is in reference to a request that the Federal Emergency Management Agency (FEMA) determine if the property described in the enclosed document is located within an identified Special Flood Hazard Area, the area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood), on the effective National Flood Insurance Program (NFIP) map. Using the information submitted and the effective NFIP map, our determination is shown on the attached Letter of Map Amendment (LOMA) Determination Document. This determination document provides additional information regarding the effective NFIP map, the legal description of the property and our determination.

Additional documents are enclosed which provide information regarding the subject property and LOMAs. Please see the List of Enclosures below to determine which documents are enclosed. Other attachments specific to this request may be included as referenced in the Determination/Comment document. If you have any questions about this letter or any of the enclosures, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.

Sincerely,

Luis V. Rodriguez, P.E., Director
Engineering and Modeling Division
Federal Insurance and Mitigation Administration

LIST OF ENCLOSURES:

LOMA DETERMINATION DOCUMENT (REMOVAL)

cc: State/Commonwealth NFIP Coordinator
Community Map Repository
Region

Federal Emergency Management Agency
Washington, D.C. 20472

ADDITIONAL INFORMATION REGARDING LETTERS OF MAP AMENDMENT

When making determinations on requests for Letters of Map Amendment (LOMAs), the Department of Homeland Security's Federal Emergency Management Agency (FEMA) bases its determination on the flood hazard information available at the time of the determination. Requesters should be aware that flood conditions may change or new information may be generated that would supersede FEMA's determination. In such cases, the community will be informed by letter.

Requesters also should be aware that removal of a property (parcel of land or structure) from the Special Flood Hazard Area (SFHA) means FEMA has determined the property is not subject to inundation by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). This does not mean the property is not subject to other flood hazards. The property could be inundated by a flood with a magnitude greater than the base flood or by localized flooding not shown on the effective National Flood Insurance Program (NFIP) map.

The effect of a LOMA is it removes the Federal requirement for the lender to require flood insurance coverage for the property described. The LOMA *is not* a waiver of the condition that the property owner maintain flood insurance coverage for the property. *Only* the lender can waive the flood insurance purchase requirement because the lender imposed the requirement. *The property owner must request and receive a written waiver from the lender before canceling the policy*. The lender may determine, on its own as a business decision, that it wishes to continue the flood insurance requirement to protect its financial risk on the loan.

The LOMA provides FEMA's comment on the mandatory flood insurance requirements of the NFIP as they apply to a particular property. A LOMA is not a building permit, nor should it be construed as such. Any development, new construction, or substantial improvement of a property impacted by a LOMA must comply with all applicable State and local criteria and other Federal criteria.

If a lender releases a property owner from the flood insurance requirement, and the property owner decides to cancel the policy and seek a refund, the NFIP will refund the premium paid for the current policy year, provided that no claim is pending or has been paid on the policy during the current policy year. The property owner must provide a written waiver of the insurance requirement from the lender to the property insurance agent or company servicing his or her policy. The agent or company will then process the refund request.

Even though structures are not located in an SFHA, as mentioned above, they could be flooded by a flooding event with a greater magnitude than the base flood. In fact, more than 25 percent of all claims paid by the NFIP are for policies for structures located outside the SFHA in Zones B, C, X (shaded), or X (unshaded). More than one-fourth of all policies purchased under the NFIP protect structures located in these zones. The risk to structures located outside SFHAs is just not as great as the risk to structures located in SFHAs. Finally, approximately 90 percent of all federally declared disasters are caused by flooding, and homeowners insurance does not provide financial protection from this flooding. Therefore, FEMA encourages the widest possible coverage under the NFIP.

The NFIP offers two types of flood insurance policies to property owners: the low-cost Preferred Risk Policy (PRP) and the Standard Flood Insurance Policy (SFIP). The PRP is available for 1- to 4-family residential structures located outside the SFHA with little or no loss history. The PRP is available for townhouse/rowhouse-type structures, but is not available for other types of condominium units. The SFIP is available for all other structures. Additional information on the PRP and how a property owner can quality for this type of policy may be obtained by calling the Flood Insurance Information Hotline, toll free, at 1-800-427-4661. Before making a final decision about flood insurance coverage, FEMA strongly encourages property owners to discuss their individual flood risk situations and insurance needs with an insurance agent or company.

FEMA has established "Grandfather" rules to benefit flood insurance policyholders who have maintained continuous coverage. Property owners may wish to note also that, if they live outside but on the fringe of the SFHA shown on an effective NFIP map and the map is revised to expand the SFHA to include their structure(s), their flood insurance policy rates will not increase as long as the coverage for the affected structure(s) has been continuous. Property owners would continue to receive the lower insurance policy rates.

LOMAs are based on minimum criteria established by the NFIP. State, county, and community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction in the SFHA. If a State, county, or community has adopted more restrictive and comprehensive floodplain management criteria, these criteria take precedence over the minimum Federal criteria.

In accordance with regulations adopted by the community when it made application to join the NFIP, letters issued to amend an NFIP map must be attached to the community's official record copy of the map. That map is available for public inspection at the community's official map repository. Therefore, FEMA sends copies of all such letters to the affected community's official map repository.

When a restudy is undertaken, or when a sufficient number of revisions or amendments occur on particular map panels, FEMA initiates the printing and distribution process for the affected panels. FEMA notifies community officials in writing when affected map panels are being physically revised and distributed. In such cases, FEMA attempts to reflect the results of the LOMA on the new map panel. If the results of particular LOMAs cannot be reflected on the new map panel because of scale limitations, FEMA notifies the community in writing and revalidates the LOMAs in that letter. LOMAs revalidated in this way usually will become effective 1 day after the effective date of the revised map.

 | Date: January 31, 2018 | Case No.: 18-08-0373A | LOMA

Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP AMENDMENT DETERMINATION DOCUMENT (REMOVAL)

COMMUNITY AND MAP PANEL INFORMATION		LEGAL PROPERTY DESCRIPTION
COMMUNITY	CARBON COUNTY, MONTANA (Unincorporated Areas)	A portion of Lot 21, as shown on Certificate of Survey No. 703 recorded as Document No. 188294, in the Office of the Clerk and Recorder, Carbon County, Montana The portion of property is more particularly described by the following metes and bounds:
	COMMUNITY NO.: 300139	
AFFECTED MAP PANEL	NUMBER: 30009C0255D	
	DATE: 12/4/2012	
FLOODING SOURCE: ROCK CREEK		APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY:45.449147, -109.089747 SOURCE OF LAT & LONG: LOMA LOGIC DATUM: NAD 83

DETERMINATION

LOT	BLOCK/ SECTION	SUBDIVISION	STREET	OUTCOME WHAT IS REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)	LOWEST ADJACENT GRADE ELEVATION (NAVD 88)	LOWEST LOT ELEVATION (NAVD 88)
21	--	COS No. 703	33 Bailey Road	Portion of Property	X (unshaded)	--	--	4068.3 feet

Special Flood Hazard Area (SFHA) - The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).

ADDITIONAL CONSIDERATIONS (Please refer to the appropriate section on Attachment 1 for the additional considerations listed below.)

LEGAL PROPERTY DESCRIPTION
PORTIONS REMAIN IN THE SFHA
ZONE A

This document provides the Federal Emergency Management Agency's determination regarding a request for a Letter of Map Amendment for the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the described portion(s) of the property(ies) is/are not located in the SFHA, an area inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). This document amends the effective NFIP map to remove the subject property from the SFHA located on the effective NFIP map; therefore, the Federal mandatory flood insurance requirement does not apply. However, the lender has the option to continue the flood insurance requirement to protect its financial risk on the loan. A Preferred Risk Policy (PRP) is available for buildings located outside the SFHA. Information about the PRP and how one can apply is enclosed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.

Luis V. Rodriguez, P.E., Director
Engineering and Modeling Division
Federal Insurance and Mitigation Administration

Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP AMENDMENT
DETERMINATION DOCUMENT (REMOVAL)

ATTACHMENT 1 (ADDITIONAL CONSIDERATIONS)

LEGAL PROPERTY DESCRIPTION (CONTINUED)

Beginning at the northwest corner of said Tract 21; N89° 30' 35"E for 32.24 feet; thence N82° 29' 08"E for 208.16 feet; thence N45° 48' 40"E for 109.85 feet; thence N51° 44' 10"E for 166.20 feet; thence N80° 31' 43"E for 292.18 feet; thence N47° 55' 18"E for 145.92 feet; thence N89° 30' 28"E for 210.30 feet; thence S53° 08' 50"E for 67.59 feet; thence S72° 51' 54"W for 190.96 feet; thence S67° 55' 53"W for 162.00 feet; thence S19° 23' 25"W for 124.93 feet; thence S00° 42' 43"E for 153.37 feet; thence S21° 40' 23"W for 119.05 feet; thence S53° 30' 14"W for 119.35 feet; thence S18° 28' 41"E for 41.07 feet; thence S89° 30' 28"W for 605.73 feet; thence N00° 45' 26"W for 300.00 feet to the Point of Beginning.

PORTIONS OF THE PROPERTY REMAIN IN THE SFHA (This Additional Consideration applies to the preceding 1 Property.)

Portions of this property, but not the subject of the Determination/Comment document, may remain in the Special Flood Hazard Area. Therefore, any future construction or substantial improvement on the property remains subject to Federal, State/Commonwealth, and local regulations for floodplain management.

ZONE A (This Additional Consideration applies to the preceding 1 Property.)

The National Flood Insurance Program map affecting this property depicts a Special Flood Hazard Area that was determined using the best flood hazard data available to FEMA, but without performing a detailed engineering analysis. The flood elevation used to make this determination is based on approximate methods and has not been formalized through the standard process for establishing base flood elevations published in the Flood Insurance Study. This flood elevation is subject to change.

This attachment provides additional information regarding this request. If you have any questions about this attachment, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.

Luis V. Rodriguez, P.E., Director
Engineering and Modeling Division
Federal Insurance and Mitigation Administration

PARCEL TO BE REMOVED FROM A DESIGNATED SPECIAL FLOOD HAZARD AREA, BEING A PORTION OF LOT 21 OF CERTIFICATE OF SURVEY NO. 703, LYING IN THE NE1/4 OF SECTION 35, T.4S., R.21E., P.M.M., CARBON COUNTY, MONTANA

LANDS OF STEVEN R & DEBORAH AUSEN

LOT 19
C.O.S. 703

POINT OF BEGINNING

N 89°30'35" E
32.24'

N 82°29'08" E
208.16'

N 45°48'40" E
109.85'

N 51°44'10" E
166.20'

N 80°31'43" E
292.18'

N 47°55'18" E
145.92'

N 89°30'28" E
210.30'

S 53°08'50" E
67.59'

353.28'

BFE = 4066.0'

S 72°51'54" W
190.96'

BFE = 4067.7'

S 67°55'53" W
162.00'

BFE = 4069.4'

S 19°23'25" W
124.93'

BFE = 4070.7'

S 0°42'43" E
153.37'

LOMA PARCEL
7.63 Acres

LOT 21
C.O.S. 703

BFE = 4071.7'

S 21°40'23" W
119.05'

S 53°30'14" W
119.35'

BFE = 4073.7'

S 18°28'41" E
41.07'

BFE = 4074.7'

S 89°30'28" W 214.18'

N 0°45'26" W
300.00'

S 89°30'28" W
605.73'

LOT 22
C.O.S. 703

BFE = 4074.9'
45°26'54.645"N
109°05'20.910"W

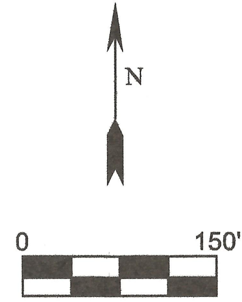
NORTH AND WEST BOUNDARY
100YEAR FLOODPLAIN

302.04'
S 4°59'28" W

ROCK CREEK

S 44°58'00" W
491.76'

TRACT 1
C.O.S. 703



This is a Montana State Plane Project, NAD83. All distances shown are ground distances.
Vertical Datum NAVD88

LOMA PARCEL PERIMETER BOUNDARY DESCRIPTION:

A parcel of land situated in a portion of Lot 21 of Certificate of Survey No. 703, lying in the NE1/4 of Section 35, T.4S., R.21E., P.M.M., Carbon County, Montana described as follows:

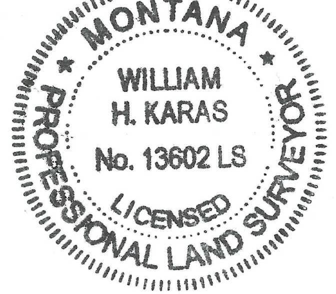
Beginning at the northwest corner of said Lot 21 thence; N89° 30' 35"E for 32.24 feet; thence N82° 29' 08"E for 208.16 feet; thence N45° 48' 40"E for 109.85 feet; thence N51° 44' 10"E for 166.20 feet; thence N80° 31' 43"E for 292.18 feet; thence N47° 55' 18"E for 145.92 feet; thence N89° 30' 28"E for 210.30 feet; thence S53° 08' 50"E for 67.59 feet; thence S72° 51' 54"W for 190.96 feet; thence S67° 55' 53"W for 162.00 feet; thence S19° 23' 25"W for 124.93 feet; thence S00° 42' 43"E for 153.37 feet; thence S21° 40' 23"W for 119.05 feet; thence S53° 30' 14"W for 119.35 feet; thence S18° 28' 41"E for 41.07 feet; thence S89° 30' 28"W for 605.73 feet; thence N00° 45' 26"W for 300.00 feet to the Point of Beginning. Containing 7.63 acres more or less and all according to the attached map.

SURVEYOR'S CERTIFICATION:

I hereby certify that the Loma Parcel on the attached map is a true representation of a survey performed by me or under my direct supervision during November of 2017.

Dated this 19th day of December, 2017
RED LODGE SURVEYING LLC,

William H. Karas, PLS,
Montana Reg. Number 13602LS
15 Two Willow Ln Ste B
Red Lodge, MT 59068



Traverse PC

Project/Owner Name: Deb and Steve Ausen

Site Evaluator BK

Test Hole # 1

Date 5/13/2019

Location 45.449, -109.090

Weather, site conditions, notes: Warm, sunny

Horizion Thickness Inches	Texture and Structure	Color/Redox Y or N	Depth to Water	Estimate of seasonally high water/ How determined	Depth to limiting Layor or bedrock	% stonyness describe rock fragments
0-12"	Loam/	10 yr 2/6				
12"-60"	Very Cobbly Sandy Loar	10 yr 4/3	60 in	Water in Soil Profile		50%

Depth to roots 24 in

Floodplain >100 ft

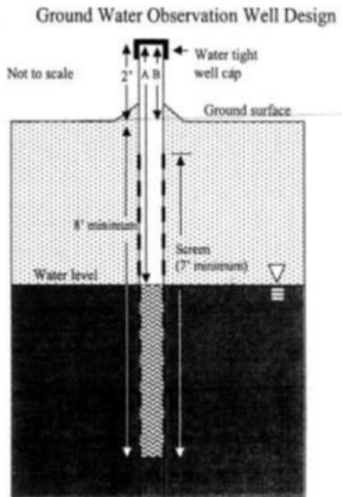
Application Rate 0.8 gpd/ft2

Slope in df area <3%

System Type - G/PD

Ground Water Observation Results				
Monitored By:	Kerry Schmelzer, RS			
Location:	45.449, -109.090			
PONDEROSA ESTATES, S35, T04 S, R21 E, PONDEROSA ESTATES LT 21 COS 703				
Observation Well # 1				
Other Location Information		Steve and Deb Ausen		
Date	Time	A (inches)	B (inches)	A-B (inches)
5/13/2019	1:00 PM	84	24	60
5/18/2018	11:00 AM	68	18	50
5/20/2019	12:00 PM	67	18	49
5/25/2019	15:30	52	18	34
6/1/2019	8:00 PM	50	18	32
6/9/2019	3:30 PM	50	18	34
6/17/2019	14:30	56	18	38
6/23/2019	5:30 PM	58	18	40
7/4/2019	8:00 PM	57	18	39

A= Distance to top of casing to the ground water level in pipe (inches).
Note: If the observation pipe is dry, enter the total depth measured and "dry" in this column.
B= Distance from top of casing to the natural ground surface (inches).



Soil Map—Carbon County Area, Montana

109° 5' 37" W | 109° 5' 5" W

45° 27' 4" N | 45° 26' 49" N

649090 649160 649230 649300 649370 649440 649510 649580 649650 649720

5034840 5034770 5034700 5034630 5034560 5034490 5034420

Lp

Lp

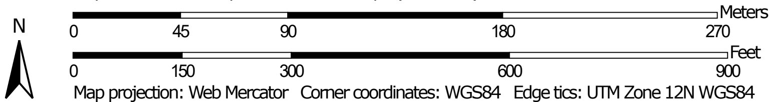
Mm

Au

Bailey Rd

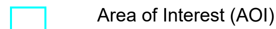
Rock Creek

Soil Map may not be valid at this scale.



MAP LEGEND

Area of Interest (AOI)


Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Carbon County Area, Montana
Survey Area Data: Version 14, Sep 5, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 26, 2011—Oct 25, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Au	Alluvial land	30.0	59.9%
Lp	Lohler silty clay loam, 0 to 2 percent slopes	4.9	9.7%
Mm	Maurice-Bearmouth complex, 0 to 4 percent slopes	15.2	30.4%
Totals for Area of Interest		**50.1**	**100.0%**

Carbon County Area, Montana

Au—Alluvial land

Map Unit Setting

National map unit symbol: cn3n
Elevation: 900 to 6,000 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 34 to 45 degrees F
Frost-free period: 110 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Alluvial land and similar soils: 80 percent
Lallie and similar soils: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Alluvial Land

Typical profile

H2 - 8 to 60 inches: very gravelly loamy coarse sand

Properties and qualities

Slope: 0 to 4 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: About 0 to 42 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Very low (about 1.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Ecological site: Draft Shallow to Gravel (SwGr) RRU 46-S 13-19" p.z. (R046XS113MT)
Hydric soil rating: No

Description of Lallie

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey alluvium

Typical profile

A - 0 to 2 inches: silty clay
C - 2 to 60 inches: silty clay

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Gypsum, maximum in profile: 5 percent
Salinity, maximum in profile: Nonsaline to moderately saline (0.0 to 8.0 mmhos/cm)
Available water storage in profile: High (about 10.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: Draft Wet Meadow (WM) RRU 46-S 15-19" p.z. (R046XS107MT)
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Carbon County Area, Montana
Survey Area Data: Version 14, Sep 5, 2018

Ausen Permit

33 Bailey Road, Boyd, MT 59013

Geocode:10-0622-35-1-06-02-0000

PONDEROSA ESTATES, S35, T04 S, R21 E, PONDEROSA ESTATES LT 21 COS 703

Carbon County

Change History
10/31/2018

Pipe Volume Calculations

Transport Pipe		
Pipe Diameter	2	(inches)
Pipe Length	150	(feet)
Pipe Volume	24.5	(gallons)

Manifold Pipe		
Pipe Diameter	2	(inches)
Pipe Length	14	(feet)
Pipe Volume	2.3	(gallons)

Laterals		
Pipe Diameter	1.61	(inches)
Pipe Length	40	(feet)
Pipe Volume	4.2	(gallons)
# of Laterals	3	
Total Lateral Volume	12.7	(gallons)

Total Volume	**39.5**	**(gallons)**
7.48052 gal/ft3		

Dose Volume using Floats			Check
Minimum Volume	90.2	(gallons)	
Recommended	153.7	(gallons)	
Proposed Volume	150	(gallons)	OK

Dose Tank Volume Sizing			
Daily Flow	350	(gpd)	
Minimum Volume	177.7	(gallons)	
Proposed Volume	500	(gallons)	OK

~~**Dose Volume using Timer**~~			
~~Minimum Volume~~	~~52.1~~	~~(gallons)~~	
~~Recommended~~	~~153.7~~	~~(gallons)~~	
~~Proposed Volume~~	~~70~~	~~(gallons)~~	~~OK~~

~~**Dose Tank Volume Sizing**~~			
~~Daily Flow~~	~~350~~	~~(gpd)~~	
~~Minimum Volume~~	~~139.6~~	~~(gallons)~~	
~~Proposed Volume~~	~~157.5~~	~~(gallons)~~	~~OK~~

Flow Calcs			Check
Design Flow	15.00	(gpm)	
Time	10.00	(mins)	OK
Variation	0.54	(%)	OK

Dose Tank Dimensions			
Usable Volume	500	(gallons)	
Gallons/foot	125	(gal/ft)	
Gallons/inch	10.41667	(gal/inch)	
Pump On	12	(inches)	
Pump Off	27	(inches)	
Volume of Dose	150	(gallons)	OK
Outlet	48	(inches)	
High Level Alarm	35	(inches)	
Reserve Storage	135	(gallons)	OK

Septic Tank Sizing			
Min. Septic Tank Size	1000	(gallons)	
Proposed Size	1500	(gallons)	OK

Head Loss and Pump Sizing Calculations

q=CA(2gh) $^{1/2}$

g	32.2	(ft/s2)
C	0.6	(openings with square edges)
h	5	(desired head loss in feet)

Must be 5' if Orifice opening is <3/16, 2.3' otherwise

$$H = \frac{(4.727)x(L)x(q)^{1.85}}{(D)^{4.87} \times (C)^{1.85}}$$

L	100	(feet, length of lateral - Between Orifices)
D	0.13416667	(feet, inside diameter of pipe)
C	150	(roughness co-efficient, use 150 for plastic pipe)

Calculated Head Loss		
Required Head	5	
Laterals	0.02	
Manifold	0.01	
Force Main	0.30	
Elevation	20	
Discharge Assembly	1	
Total Required Head	**26.33**	(feet)
Design Flow	**9.07**	(gpm)

Flow in Laterals			
# of Laterals	2		
# of Orifices	9		
Orifice Spacing	5	(feet)	OK
Diameter of opening	1/8	(inches)	OK
Manifold to 1st Orifice	1	(feet)	
Orifice Area	0.000085	sq. ft.	

Head Loss (Lateral)	0.0203
Head Loss (Manifold-Lateral)	0.0016
Total Head Loss (Lateral)	0.0219

Flow in Manifold				
$q_{manifold}$	0.007	(cfs)	3.0	(gpm)
Length	14	(feet)		
# of T's	1			
# of 90° Bends	2			
Effective Length	25	(feet)		
Head Loss	0.0066	(feet)		

Orifice	Total Head Loss (feet)	Flow/Orifice (gpm)	Total Flow (gpm)	Flow/Orifice (cfs)	Total Flow (cfs)	Head Loss (feet)	Total Head Loss (feet)
1	5.0000	0.4118	0.4118	0.0009	0.0009	0.0001	0.0001
2	5.0001	0.4118	0.8236	0.0009	0.0018	0.0003	0.0004
3	5.0004	0.4118	1.2354	0.0009	0.0028	0.0007	0.0012
4	5.0012	0.4118	1.6472	0.0009	0.0037	0.0012	0.0024
5	5.0024	0.4119	2.0591	0.0009	0.0046	0.0019	0.0043
6	5.0043	0.4120	2.4711	0.0009	0.0055	0.0026	0.0069
7	5.0069	0.4121	2.8832	0.0009	0.0064	0.0035	0.0103
8	5.0103	0.4122	3.2954	0.0009	0.0073	0.0044	0.0148
9	5.0148	0.4124	3.7078	0.0009	0.0083	0.0055	0.0203
10	5.0203	0.4126	4.1204	0.0009	0.0092	0.0067	0.0270
11	5.0270	0.4129	4.5333	0.0009	0.0101	0.0080	0.0351
12	5.0351	0.4132	4.9466	0.0009	0.0110	0.0094	0.0445
13	5.0445	0.4136	5.3602	0.0009	0.0119	0.0109	0.0554
14	5.0554	0.4141	5.7743	0.0009	0.0129	0.0125	0.0680
15	5.0680	0.4146	6.1888	0.0009	0.0138	0.0143	0.0822
16	5.0822	0.4152	6.6040	0.0009	0.0147	0.0161	0.0983
17	5.0983	0.4158	7.0198	0.0009	0.0156	0.0180	0.1163
18	5.1163	0.4166	7.4364	0.0009	0.0166	0.0200	0.1364

Flow in Force Main			gpm		ft/sec
$q_{forcemain}$	0.020	(cfs)	9.066671543	0.021817	0.925992894
Length	150	(feet)			
# of T's	0				
# of 90° Bends	0				
Effective Length	150	(feet)			
Head Loss	0.3016	(feet)			

Input values from application		
Basal soil loading rate	0.6	gpd/ft^2
House size	4	bedrooms
Design flow	350	gpd
Number of homes	1	
Depth of Sand	16	inches
Sizing Reduction?	25	%

Sand Area			Check
Width	13	ft	OK
Length	44	ft	OK
3:1 Check	3.384615		OK
Basal Area			
Width	30	ft	OK
Length	61	ft	OK
Total Area	1830	ft^2	OK

Calculated Values			
Sand loading rate	0.8	gpd/ft^2	
Total Flow	350	gpd	
Bed Sizing			
Sand	328.125	ft^2	
Basal	437.5	ft^2	

§6.6.3.7 requires minimum 3:1 ratio of length to width

Sand Sizing			
$3x^2$=	328.125	ft^2	
x=	10.45825	ft	(width)
3x=	31.37475	ft	(length)
Depth of Sand	1.333333	ft	
Basal Sizing			
Overall Width	22.45825	ft	
Overall Length	43.37475	ft	
Overall Area	974.121	ft^2	

ESM Checklist

Section				
6.7.1	General			
		Pressure Dosing?	Yes	OK
	A	Is Perc Rate Between 3 and 50 mpi?	Yes	50% Reduction in Absorption Area
	B	Is Perc Rate Between 50 and 120 mpi?	N/A	
		*No sizing reduction for gravelless trenches		
6.7.2	Location			
	6.7.2.1	Meets site requirements of Ch. 1?	Yes	OK
	6.7.2.2	Meets separation distances?	Yes	OK
	6.7.2.3	Is soil undisturbed and naturally occuring?	Yes	OK
	6.7.2.4	Is basal soil application rate between 0.4 to 0.8 gpd/ft2?	Yes	Proceed to Next Question
		Is slope greater than 12%?	No	OK
		Is basal soil application rate between 0.3 to 0.2 gpd/ft2?	N/A	Skip next question and proceed
		Is slope greater than 6%?	N/A	OK
		Is land area 25 feet from the toe disturbed?	No	OK
	6.7.2.5	Is replacement area required?	No	Skip next question and proceed
		Does replacement area meet all DEQ-4 & siting requirements?	Yes	OK
6.7.3	Design			
	6.7.3.2	Is Basal area sized correctly?	YES	
	6.7.3.3	Is Sand area sized correctly?	YES	
	6.7.3.4	Is there 21 inches or more of sand above natural soil surface?	Yes	OK
		Is there 12 inches of sand between trench bottom and natural soil surface?	Yes	OK
		Does sand meet grading requirements of A, B, or C?	Yes	OK
	6.7.3.6	Are distibution pipes oriented along land contours?	Yes	OK
		Are distribution pipes spaced at least 3 feet and no more than 5 feet apart?	Yes	OK
		Is length of sand bed at least 3 times the width?	YES	OK
	6.7.3.7	Does sand fill extend 2 feet beyond edge of absorption area before slope?	Yes	OK
	6.7.3.8	Is the mound covered with a minimum of 12" at the center?	Yes	OK
		Is the mound covered with a minimum of 6" at the edge?	Yes	OK
		Is cover material sandy loam, loamy sand, or silt loam?	Yes	OK
6.7.4.1	Construction			
	6.7.4.1	Is a key or scarification of 4-8" specified in the plans?	Yes	OK
		Does sand in key count toward required 21" in 6.7.3.4?	No	OK
6.7.5	Certification and As-builts			
		Has applicant specified that certification and as-builts will be submitted?	Yes	OK
			Can approve?	**APPROVE**

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client:	Deb Ausen	**Report Date:**	06/15/22
Project:	Not Indicated	**Collection Date:**	06/02/22 07:00
Client Sample ID:	Well #2	**Received Date:**	06/02/22 08:07
Sampled By:	Not Provided	**Matrix:**	Drinking Water
Lab ID:	B22060184-001A		

Analyses	Result	Units	Safe/Unsafe	Qualifier	Method	Analysis Date / By
MICROBIOLOGICAL						
Coliform, Total	Absent	per 100ml	SAFE		A9223 B	06/02/22 12:13 / spb
Coliform, E-Coli	Absent	per 100ml			A9223 B	06/02/22 12:13 / spb

Comments: The notation "SAFE" indicates that the water was bacteriologically SAFE when sampled.

The notation "UNSAFE" indicates that the water was bacteriologically UNSAFE when sampled.

Qualifiers:

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Deb Ausen
Project: Not Indicated
Lab ID: B22060184-001
Client Sample ID: Well #2

Report Date: 06/15/22
Collection Date: 06/02/22 07:00
DateReceived: 06/02/22
Matrix: Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Conductivity @ 25 C	3140	umhos/cm		5		A2510 B	06/02/22 12:07 / fap
NUTRIENTS							
Nitrogen, Nitrate+Nitrite as N	0.01	mg/L		0.01	10	E353.2	06/10/22 12:59 / krt

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

Cooperative Agreement

Between

Montana Department of Public Health and Human Services

And

Board of Health

Identity of Parties and Purpose Statement

This **Cooperative Agreement** (Agreement) is between the **Montana Department of Public Health and Human Services** (DPHHS), and the________________**County Board of Health** (BOH).

The purpose of this Agreement is to establish a payment schedule for maximizing the disbursement of funds to the BOH to support inspections of licensed establishments and to determine which optional programs the BOH will conduct.

A failure to sign this agreement may result in the inability of a local health jurisdiction to maximize funding. Each completed in-person inspection will result in a payment equal to the license fee or the portion of that fee designated in the applicable statute. DPHHS will not provide reimbursement for incomplete inspections.

Period of Performance and Termination of this Cooperative Agreement

This Cooperative Agreement is effective from **January 1, 2023 through December 31, 2023** and cannot be terminated except by written notification from one of the parties with a minimum of 30-day notice. This agreement may not be extended.

Sole Agreement

This is the only Agreement between the parties with respect to payments for inspections for licensed establishments. This Agreement replaces any previous Cooperative Agreement(s) entered into by the parties with respect to payments and responsibilities for inspections of public establishments as defined in this agreement.

Alterations or Amendments

The parties may amend this Cooperative Agreement by mutual agreement. Any amendment is effective only when in writing and signed by both parties.

Responsibilities of the parties:

The BOH agrees:

1. To inspect the following types of licensed establishments within its jurisdiction, in-person, on an annual or more frequent basis as described below:
    a) Inspections required to be performed by local health jurisdictions
        i. Retail Food Establishments

ii. Wholesale Food Establishments
iii. Trailer Courts & Campgrounds
iv. Public Accommodation (see 2a for exceptions)

b) The BOH agrees to conduct the following activities (please check all that apply):

i. Conduct pools, spas and other water feature inspections – Seasonal establishments must be inspected once per calendar year. Year-round establishments must have one full facility inspection and one critical point inspection conducted per year.

O Yes
O No

ii. Conduct body art establishment inspections for your county.

O Yes
O No

iii. Conduct body art establishment plan reviews for your county.

O Yes
O No

iv. Peer to Peer Inspector Training (see Appendix B and Table 3)

O Yes
O No

v. Conduct joint wholesale processing and product label reviews with DPHHS

O Yes, county will review processing and product label reviews with DPHHS
O No, DPHHS alone will review processing and labels.

vi. Conduct trailer court, campground, work camp, and youth camp plan reviews without DPHHS

O Yes
Name of sanitarian that will be reviewing: ________________
O No

c) If the BOH chooses not to perform inspections and/or plan or process reviews of pools, spas, and other water features, wholesale food establishments, or body art facilities, they will be conducted by the Department or its designee. A designee may include a neighboring county under contract with the Department.

d) If the BOH opts out of Pool and Body Art inspections, the BOH gives DPHHS the authority to sign Pool, Spa, and Body Art licenses for the county.

e) If the BOH opts into Peer to Peer Inspector Training, they agree to have Trainers host a trainee, travel to the trainee's county, or a combination of the two, to perform routine inspections of licensed establishments (See Appendix B and Table 3). Only DPHHS-standardized or FDA-standardized inspectors may provide the Peer to Peer inspections of retail food establishments. Opting into this program means that you are only obligated to assist counties as time allows. It does not mean that you are expected to prioritize neighboring county trainings over your own.

f) During joint review, counties conducting their own plan reviews, wholesale labels and processing plans should submit the documents to DPHHS for review to ensure statewide consistency is maintained..

g) The option to review trailer court, campground, work camp, and youth camp plan reviews without DPHHS involvement is only available to sanitarians contracted with the DEQ per ARM 17.36.116. DPHHS reserves the right to audit all trailer court, campground, work camp, and youth camp plan review applications and make final determinations prior to issuing a license.

2. To inspect public sleeping accommodations within its jurisdiction as follows:
    a) Inspect each hotel, motel, rooming house/boarding house/hostel in-person before initial license validation, upon complaint, and routinely inspect at least once annually;
    b) Inspect each bed & breakfast and tourist/vacation home/condominium in-person before initial license validation and upon complaint;
    c) Complete follow-up inspections as determined necessary by the sanitarian; and
    d) Make a reasonable effort to license all operating establishments, including tourist homes.

3. Inspections of licensed establishments, including pre-opening inspections, must be performed in-person, on-site by the local health officer, sanitarian, or sanitarian-in-training.

4. To enter inspection dates into the Department's database, after inspection or within two weeks after the end of each quarter;

5. A minimum of one person in the County will obtain access to the Department's licensing database, receive training, and enter the date and name of person performing each inspection;

6. On a minimum of a quarterly basis, to notify the Department of any status changes to establishment licenses (i.e. out of business; change of ownership);

7. To provide copies of inspection reports to the Department for auditing purposes, upon request;

8. To notify the Department when a sanitarian or the BOH takes enforcement action that may impact a license; and

9. To be eligible for payment from the Local Board Inspection Fund (LBIF), the County must maintain a functioning local board of health as required by Title 50 of the Montana Code Annotated.

The Department agrees:

1. To pay the percentage required by statute of each licensing fee received by the

Department into a Local Board Inspection Fund. Fees paid into the fund will be collected from licensees of retail food establishments, wholesale food establishments, public accommodations, trailer courts and campgrounds, and, if applicable, body art establishments (see Table 2), pools, spas, and other water features;

2. To pay the BOH the license fee or fees associated with an establishment from the local board inspection fund, so long as the licensed establishment is inspected in-person or reported as permanently closed and the license fee or fees have been paid by the establishment.

3. If the BOH inspects licensed establishments in program categories covered by this agreement before the end of the licensure year, payment from the Local Board Inspection Fund will be made at the rates according to statute using the payment schedule in Table 1. Payment rules to be applied to the percentages can be found in Appendix A;

4. To provide copies of plan review correspondence to the county sanitarian;

5. The amount available from the local board inspection fund is solely dependent upon fees paid by licensed establishments within the relevant jurisdiction. The percentage paid to the BOH under the schedule is intended to be a percentage of the actual amount available in that fund based on amounts paid in from licensees. Under no circumstances will the Department be obligated to pay an amount larger than has been paid into the Local Board Inspection Fund. Payment is also dependent on statutory authority available to the State to make payments from the Local Board Inspection Fund;

6. To provide training, education, technical assistance and information to staff of local board of health;

7. To maintain a record of inspections submitted by the staff of the local board of health as required in rule; and

8. To provide analytical support through the Laboratory Services Bureau to the BOH's environmental health program regarding food safety. When necessary, support to environmental health programs may include food and environmental sampling for *Salmonella, Listeria,* and Shiga-toxin producing *E.coli,* along with clinical (human) testing for the analytes listed in the public health laboratory manual.

   The laboratory maintains and provides sample collection kits and technical support when food or water samples need to be collected and tested for contamination. This includes food sampling kits and drinking water emergency sampling supplies. Examples include assisting with *Listeria* swabbing or collecting and shipping samples of food for *Salmonella* or *E.coli* analysis.

   The Laboratory Services Bureau is certified by Region 8 of the EPA and can provide water analysis for pesticides, herbicides, volatile organics, industrial chemicals, nutrients, enteric bacteria, oxygen demand, metals, mercury, as well as lead in paint

and dust wipes. The laboratory not only tests drinking water, but also wastewater, groundwater, sediment, solid wastes, and plant and fish tissues.

In an outbreak or emergency where the Department cannot provide laboratory support through the Laboratory Services Bureau, it will work closely with relevant regulatory agencies and their laboratories including the CDC, FDA, and USDA.

Table 1: Payment Schedule- Applies to Retail Food Establishments; Wholesale Food Establishments; Public Accommodations (except Tourist Homes and Bed & Breakfasts *see note) Trailer Courts/Campgrounds; Body Art Establishments; Pools, Spas and Other Water Features (if applicable):

Percent of Licensed Establishments Inspected in-person by the County during the licensure year	LBIF Disbursement by Percentage
90% - 100%	100% (of paid licenses)
< 90%	1 Payment per Paid License per Inspection

* Note: All license fees for Tourist Homes and Bed & Breakfast will be paid annually to the county and are not subject to Table 1.

Table 2: License fees reimbursed to counties performing in-person inspections of Body Art Establishments:

License type	**License fee**	**Reimbursement per inspection**
Tattooing	$135	$121.50 (90%)
Body Piercing	$135	$121.50 (90%)
Ear lobe piercing only	$75	$67.50 (90%)

Table 3: Peer to Peer Inspector training: Counties will be reimbursed for mileage, meals and lodging for their employees who may be either trainers or trainees and travel outside of their home counties for the purpose of peer-to-peer training. Counties who host a trainee will also be given an additional $50 per training inspection. Please note that opting into this portion of the cooperative agreement does not obligate you to provide this service.

Peer to peer trainings will only be done when both counties have time (See Appendix B).

Lodging*	State Rate (Approx. $96/Night)
Meals	Up to $30.50 Per day
Mileage	$0.279 Per mile
Additional Inspection Reimbursement	$50.00 Per Inspection

* Note: Lodging will be reimbursed at the state rate unless preauthorization is granted by DPHHS; every attempt should be made to obtain state rates.

Both parties agree that:

1. The responsibilities of the parties are governed by the Montana Code Annotated and the Administrative Rules of Montana and nothing in this agreement is intended to contradict or supplant relevant provisions of the laws of Montana; and

2. The following process is to be used in the event of a disagreement between the BOH and the Food & Consumer Safety Section (FCSS) about the terms of this agreement.

   a. If the BOH is unable to resolve their disagreement with FCSS, a written notification from the BOH must be provided to the Communicable Disease Control and Prevention Bureau Chief. The BOH shall provide in writing specific details about the remaining issues that are in dispute. The Bureau Chief shall attempt to resolve the dispute. If unable to resolve the dispute, the reasons for the department's position on the issues in dispute must be presented to the BOH in writing.

   b. If resolution of the disagreement is not obtained, the BOH may request a review and written determination to be made by the Public Health and Safety Division Administrator.

   c. The decision of the Division Administrator may be appealed to the Department Director, whose decision is final.

Liaisons:
These persons serve as the primary contacts between the parties regarding the performance of the task order.

1. Staci Evangeline is the liaison for DPHHS (phone: 406-444-5309)

2. Liaison for the BOH:____
   (Print name and title)

For: Montana Department of Public Health and Human Services

Signature: ____

Printed name and title: Todd Harwell, Division Administrator

Date: ____

For: _________________________ County Board of Health

Signature: ____

Printed name and title: ____

Date: ____

Please mail signed Agreement to:

Staci Evangeline, Supervisor
DPHHS-Food & Consumer Safety Section
P.O. Box 202951
Helena MT 59620-2951

Appendix A:

Payment Rules for Licensed Establishments

The following scenarios describe how credit for an in-person inspection will be applied to the percentage described in Table 1 of this Agreement. Any scenarios not covered by these business rules will be evaluated on a case by case basis.

Scenario	**License Fee(s) paid**	**Inspection(s) completed**	**Credit(s) toward percentage**
1	License fee paid	1 or more inspection(s) completed	1 credit toward percentage
2	License fee paid	0 inspections completed	0 credit toward percentage
3	License fee paid	0 inspection completed due to business closing	1 credit toward percentage
4	0 fees paid	0 inspections completed	0 credit toward percentage
5	2 license fees paid on 1 establishment due to change in ownership	2 inspections performed because of change in ownership	2 credits toward percentage
6	2 license fees paid on 1 establishment due to change in ownership	1 inspection performed	1 credit toward percentage
7	License fee paid for pool or spa operated throughout the year	1 full facility and 1 critical point inspection performed	1 credit toward percentage
8	License fee paid for seasonal pool or spa	1 full facility inspection performed	1 credit toward percentage

Appendix B:

Peer to Peer Inspector Training

One of the tasks of Food and Consumer Safety is to provide or facilitate training to ensure consistent, high quality inspections across the state. Joint inspections with experienced county inspectors are one way to accomplish that. To minimize the impact to county budgets, Food and Consumer Safety will fund peer to peer inspection training up to $10,000 per year (allocated total for the entire state).

These funds are available on a first-come, first-serve basis for counties with a new inspector, or an inspector needing additional training in a certain type of inspection or inspection components outside of previous training. This may be a Sanitarian in Training (SIT) or is a sanitarian that is moving into inspection types with which they have limited experience.

Training will be provided at the discretion of the counties. If a county opts into this program but time and/or resources change the county is not obligated to host training or send a trainer to a neighboring county.

Minimum requirements for trainers:

1. Currently employed by a county and determined by FCS to be qualified to provide training;

The following applies to food inspections:

a. Trainers must be standardized in food inspections by the State Standard or FDA Standard.

b. Minimum Facility Requirements
    1. Risk Level 2, 3, or 4

c. Inspections by Risk Level (see Annex 5, Table 1 of the 2013 Food Code)
    1. Risk Level 2 - no more than 3 inspections
    2. Risk Level 3 or 4 - up to 12 inspections
    3. If possible, facilities should include
        a. retail processing,
        b. HACCP, and
        c. Molluscan shellfish sales or service
    4. FCS currently does not have plans to approve more than 15 Peer to Peer inspections at a time.

Reimbursement:

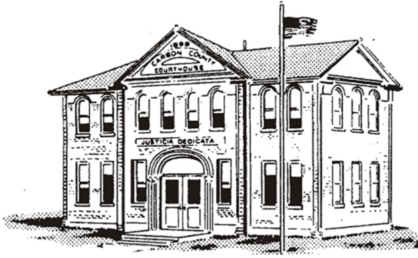
1. Trainers may host the trainee and/or travel to the trainee’s county to perform inspections.
2. Reimbursement to the county for mileage, meals and lodging for either trainers or trainees who travel outside of their jurisdiction.
3. An additional $50 per inspection for a county hosting a trainee, due to the additional amount of time required for training.

Projected Reimbursement per training:

Lodging	State Rate (Currently $96/night)	x5 nights	$480.00
Meals	$30.50/day	x5 days	$152.50
Mileage	$0.279/mile	x400 miles	$111.60
		Total travel	$744.10
Additional inspection reimbursement			
	$50.00/inspection	x15	$750.00
Total per sanitarian trained			**$1494.10**

All peer to peer training must be pre-approved by FCS. To receive pre-approval, send the section the following information:

1) The training inspector
2) The trainee
3) The establishments to be visited with the risk categories
4) The number of days and nights spent training
5) The projected lodging cost
6) The projected mileage cost



COUNTY OF CARBON ~ STATE OF MONTANA

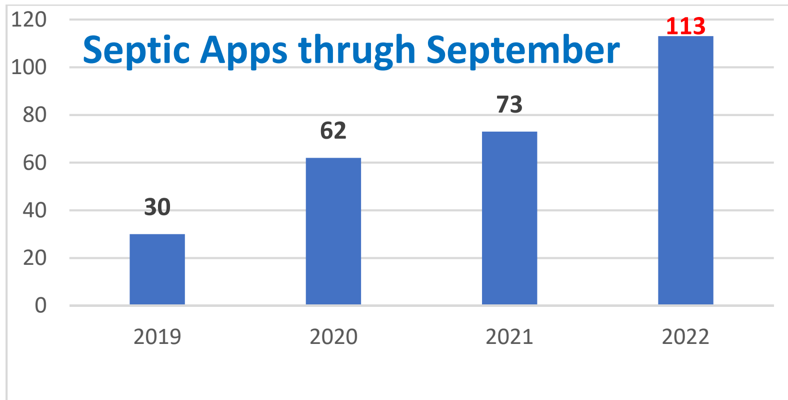
ENVIRONMENTAL HEALTH DEPARTMENT

PO Box 466 Phone: 406.446.1694
Red Lodge, MT 59068 https://www.co.carbon.mt.us

MONTHLY RE-CAP THROUGH SEPTEMBER 2022

ENVIRONMENTAL/ON-SITE WASTEWATER

- As of 9/29/2022 YTD: 113 Septic Applications. (Already exceeded 2021 *TOTAL* applications; September YTD is 155% of 2021's YTD volume). Daily triage. Only enough staff time for Construction Authorizations, not permitting.



- Commission signed contracts for services with DEQ/Spry Consulting for DEQ Applications; awaiting DEQ sig.
- Commissioners signed contract with Engineering West for auxiliary Septic Review services.

GRANT DELIVERABLES / LICENSING

- FDA Standardization Grant: Nothing new to report.
- Continuing high volume of inquiries, applications, and inspections (4 weekly) for Short-Term Rentals.
- DPHHS/FCS 8/31/2022: 90% inspection goal by category. 243 licenses with total possible payments $16,050.50)

CATEGORY	# IN COUNTY	# INSPECTED THRU AUG	INSPECTION FEE (per)	PERCENTAGE THRU AUG
Retail Food – Small	49	28	$76.50	57%
Retail Food – Large	54	24	$103.50	44%
Food Manufacturing	5	1	$103.50	20%
Pools/Spas	RiverStone	RiverStone	RiverStone	RiverStone
Public Accom (1-10)	108* (not annual, some tourist homes)	10	$34.00	N/A
Public Accom (11-25)	5	5	$68.00	100%
Public Accom (26+)	6	5	$136.00	83%
Campground/TC (1-10)	6	6	$34.00	100%
Campground/TC (11-25)	1	1	$51.00	100%
Campground/TC (26+)	4	3	$102.00	75%
Body Art, Tattooing	3	1	$121.50	33%

COMPLAINTS:

- Agri-Organics: Complaints routed through Planning (Forrest).
- Joliet Food Farm on-line complaint. Inspected OK.
- 12 Riada Dr: Unlicensed STR with a DEQ COSA violation. In process…
- Blanchard Butte Rd submitted by Diana Doll re: burning garbage and camper effluent in ditch. Kohley site visit. Follow-up on-hold for increased staffing.
- E Pryor Rd / Bequette (Edgar) On-Site Wastewater/Litter petition submitted by Mark Siegfried. Follow-up on-hold for increased staffing.

EVENTS

- Flood: 52 well tests sent to Energy Labs: 28 results thus far (19 contaminated).
- Flood: East Rosebud Homeowners Association. Wide-spread and extensive damage to water/septics at cabins. Will need to wait for road access to assess/repair.

MISC:

- Conditional offer extended for Full-Time Sanitarian; awaiting decision.

Carbon County Public Health Department

Board of Health Report July – September 2022

COMMUNICABLE DISEASE REPORTING JULY-SEPTEMBER 2022

1. COVID-19 –(209)
2. Campylobaceriosis (1)
3. Chlamydia (12)
4. Gonorrhea (1)
5. Influenza (1)
6. Lead Poisoning (4)
7. Lyme Disease (1)
8. Rabies PEP given (1)
9. Shiga toxin-producing Escherichia Coli (STEC) (1)
10. Syphilis Secondary (1)
11. Syphilis Unknown Duration or Late (1)

Monkeypox update: as of Sept. 29th Montana has had six cases of monkeypox/orthopoxvirus reported.

Working with local clinics and providers to start increasing testing for syphilis, 213 cases across MT. with the largest reported amounts in Yellowstone County (55) and Big Horn County (41)

SERVICES/PROGRAMS

- **CRISIS COALITION**
  - Working with state on a Mobile Crisis Intervention Team model with 27/7 coverage with licensed providers. Hope to launch in January.
- **SCHOOL HEALTH**
  - Fall mobile vaccination clinics are scheduled for all schools
  - Interlocal Agreements for the Rural School Health Program have been signed by all County Schools.
- **IMMUNIZATION**
  - Fall Immunization Clinics are scheduled.
  - VFC and Private stock Influenza vaccines have arrived
- **MATERNAL CHILD HEALTH**
  - Working to become established with Promise 686 which partners with local religious organizations to: raise awareness around the needs of vulnerable children, help prevent children from going into foster care by supporting biological families in need, recruit and

equip foster & adoptive families, and create care communities for those caring for at-risk kids.
    - Working with the WIC contact on immunization checks for WIC patients. Working on building better collaboration and coordinating in-person contact for patients monthly.
- **CLINICAL SERVICES**
    - Medicaid Enrollment secured August 29th.
    - CureMD Medical Billing Software selected and being setup.

STAFFING

- Two part-time RNs have been hired. They are currently sharing Rural School Health and in office RN activities.
- Actively hiring for another part-time RN for Clinical Services.

NEXT QUARTER'S GOALS

- Continue to build relationships with schools.
- Continue to build Clinic Services and provide in-house vaccinations. Look for a medical billing consultant.
- Community Health Assessment.
    - Nicholas Coombs with University of Montana developing quote for data analysis.
    - Looking for grant funding to help pay for the data collection, analysis, and to produce the report
    - Gathering various assessments done by community partners (Beartooth Assessment, Community Foundation Housing Assessment, etc.) to incorporate.
- Become more involved in the Local Emergency Planning Committee (LEPC)

LONG TERM GOALS

- Continue to build the local Crisis Coalition
- Develop a Chronic Disease and Pain Management program. Looking at possible funding via Opioid Court Settlements; need a clinic RN hired before we can move forward.
- Education.
    - Continue regular QPR suicide prevention trainings.
    - Re-invigorate DUI Task Force

Angela Newell

From: Cyrina Allen
Sent: Monday, October 3, 2022 3:20 PM
To: Angela Newell
Subject: Additions for BOH

Hello,

Below are a few bullet points that could be added to the DES department report for BOH:

- Flood AAR's fully conducted for both Red Lodge Area and Clarks Fork Valley
  - Improvement plans and response plans are being worked on
  - This will include improvements on boil water notices
- Few homes left with needs for mold remediation assistance
  - Red Lodge Area Community Foundation has hired case managers that are offering assistance for mold remediation options
- Mitigation projects being reviewed for grant opportunities to protect Fromberg's public water wells
- East Bridger Train Derailment
  - Release of approximately 30,000 gallons of refined gasoline onto private property
    - No injuries and no threat to public
    - BNSF remediation crews continue to monitor water and soil quality

Thank you Angela!

Cyrina Allen
Director of Disaster and Emergency Services/Carbon County Public Health Officer
Carbon County Disaster and Emergency Services
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https://carbonalert.org/

Note: My regular office hours are Tuesday-Friday 7am-5pm. With the nature of my position and the duties assigned, these hours can vary and I may be out in the field often. Please do not hesitate to email me and I will reply as soon as I can. If you need immediate assistance, please call and/or text my cell at 406-426-8746. Thank you.

Monthly DES Update to County Commissioners

September 6, 2022

Incidents

- Spring 2022 Flood
    - Bi-weekly meetings on Tuesdays at 1300; planning to move to monthly
    - Weekly Long-term Recovery Group meetings on Wednesday at 0900
    - Debris removal task force meetings every Monday at 1pm
        - Debris removal data points submitted last week
    - FEMA left!!!!!
    - Working with County PIO
        - Building out public information avenues for long-term reference
    - Red Lodge/Roberts/Roscoe Flood AAR 8/31; Clarks Fork Valley AAR 9/7 @ 1900
    - Met with NWS on flood stage/warning changes for future events and to get better prediction monitoring
        - Forest Service, NWS, USGS, DNRC, and Conservation District
        - Focusing on Rock Creek, Clarks Fork, and East Rosebud drainages

Grants

Emergency Management Planning Grants (EMPG)

- FY2022-23 application submitted early April
    - $110,000 ($55,000 grant/$55,000 match)
    - Received award letter
- FY2021-22 grant
    - Submitted claims and received Q4 reimbursement
    - Working on closeout for 2021-22 EMPG
- FY2021 Reverted Funds Grant submitted 6/29/2022
    - State DES received award; letting counties know if they are awarded
    - $6000 ($3000/$3000 Grant/County Match)
        - EOC upgrades and buildout

Hazard Mitigation Grant Program (HMGP)

- Bearcreek water system
    - Most of application complete
        - $6-7000 application for soil stabilization
        - Meeting today with State Mitigation to complete and submit this week

Pre-Disaster Mitigation

- Sand Creek Advanced Assistance Grant
    - Tetra Tech of Billings is the selected engineer
    - Met with TetraTech and Bridger Public Works on 7/11/22
        - Project list report
    - Submitted accruals as required by grant
    - Attending Bridger Town Council 9/6 to start grant closeout process

State Homeland Security Grant Program

- Dunne to install microwaves
- Extension requested and granted
    - Antenna numbers and frequency delays

911 Grant Program

- Priority Dispatch/ProQA
  - End of August request for reimbursement, and grant closeout submitted.

911 / Communications

- Radio Committee meetings monthly on the 3rd Wednesday
- New Repeaters ordered
- TWEnterprises working on quotes for generator/switch replacements

Training /Exercises/Education

- Leaving this until winter months

Miscellaneous

- MADESC Committee
  - Conference Sept 27-29th Great Falls
- Monthly IPAWS tests
- Monthly meetings for Regional Hazard Mitigation Plans
- LEPC tomorrow at 12 in Red Lodge
- **BOTH POOLS IN CARBON COUNTY ARE CLOSED!!!!**

Public Health Officer

- Bi-weekly PHO Small County calls
- Monkey-pox has made it to Montana, but not Carbon yet

Mental Health Center
MHC Carbon County Prevention
Report to Carbon County Board of Health 20221006
April - September 2022 Prevention Activities, Projects, and Education

Alcohol True Stories –MHC Intern Karli Campiglia of RLHS, conducted a presentation and led the guided discussion at a RLHS Health Class.

Mental Health First Aid –24 mental health first aiders were certified in Carbon County during FY22. Carbon County participants included DSVS staff and advocates, first responders, business owners, HR personnel, and others.

Overdose to Action Grant - $5000 OD2A grant was awarded to conduct Mental Health First Aid, Youth MHFA, Pax Tools training in South Central MT, including Carbon County 10/2021 – 9/2022. The OD2A grant covered the cost of materials and venues for training in Carbon County and other counties in South Central Montana. An application was submitted in Sept 2022 for an OD2A FY23 grant for $5,000 to train a member of the Carbon County Crisis Coalition to become an instructor for Mental Health First Aid and Youth Mental Health First Aid.

Parenting Montana – PM printed materials are distributed at public buildings, schools, businesses, and at the RLACF Annual Fun Run for Charities. Parenting Montana public service announcements will be broadcast during FY23 over FM99.3.

Pax Tools – Prevention Specialist became re-certified as a Pax Tools Community Educator. Pax Tools are simple, evidence-based strategies that parents, and other caregivers can use to help improve children's self-control and emotional self-regulation skills.

Prime for Life – MHC Prevention offers an Under 21 Prime for Life course (4.5 hours) to youth who have indicated use or offended, and to Carbon County schools' health classes. In addition, PFL classes (12 hours) are conducted by both the MHC and Alternatives for Carbon County individuals who are court ordered to ACT Class.

Responsible Alcohol Sales and Service (RASS) certification classes –First Wednesday of each month at Personal Services Building, and as requested by license holders in Belfry, Bridger, Joliet, Red Lodge Mountain and Red Lodge Golf Course.

Youth Mental Health First Aid – Red Lodge Area Community Foundation awarded a $900 grant to the MHC Prevention Program to conduct Youth MHFA training in Carbon County. The $900 RLACF grant provides YMHFA training materials for 30 adults who work with youth, and adults who are parents or act in a parenting role.

Mary Cameron
MHC Prevention Specialist
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Guidebook for Montana Board of Health Members

January 1

2022

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Welcome to The Local Board of Health!

As a member of the board of health you have been entrusted with many responsibilities and opportunities to improve the health of the residents in your jurisdiction. This guidebook is meant to be a resource to assist you in carrying out your duties as a local board of health member.

Public health constantly changes to address the needs of the population. Public health isn't about the health of one individual, but is about the health of the population as a whole. For example, public health:

- Provides protection from disease by ensuring Montanans receive their vaccinations;
- Prevents environmental illnesses by assuring that laws are enforced to make sure Montanans have safe water to drink and safe food to eat;
- Brings members of a community together to determine health priorities and make plans to address those needs.

As a local board of health member, you will be supported by a variety of local partners and the Montana Department of Public Health and Human Services (DPHHS) Public Health and Safety Division (PHSD). PHSD is prepared to offer you technical assistance in any public health area, including your role as a local board of health member. Thank you for all the work you will be doing on behalf of Montanans.

What Is Public Health?

The Centers for Disease Control and Prevention (CDC) defines public health as "*the science of protecting and improving the health of families and communities through promotion of healthy lifestyles, research for disease and injury prevention, and detection and control of infectious diseases*."[1] In other words, public health is the activities that society undertakes to assure the conditions in which people can be healthy.

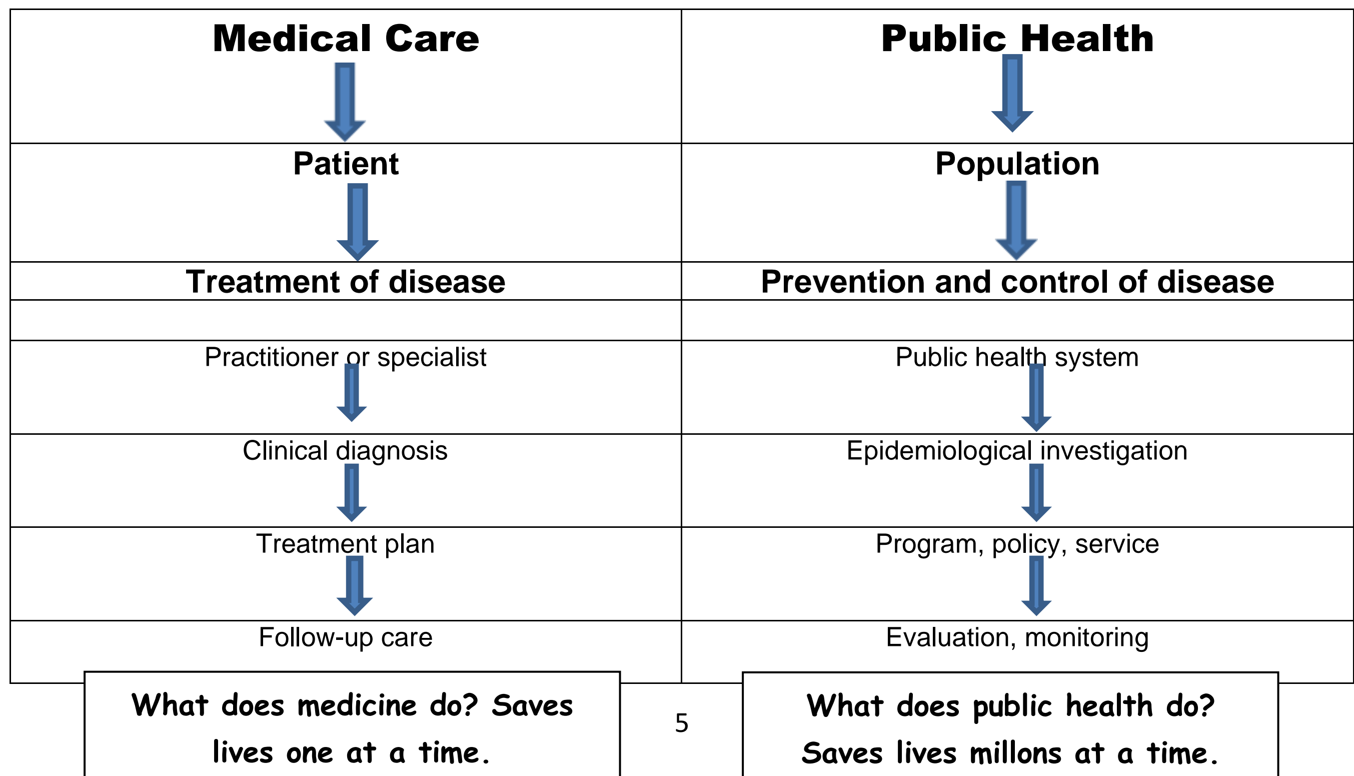
Public health is a broad field and public health services are largely delivered in six areas[2]:

- Prevention of epidemics and the spread of disease
- Protection against environmental hazards
- Prevention of injuries
- Promotion of healthy behaviors
- Preparing for, responding to, and recovering from public health emergencies.
- Assuring the quality and accessibility of health services

Public health works closely with medical care and social services, but is distinct from them because it focuses on (**Figure 1**):

- Populations and groups of residents, rather than individual patients
- Prevention of health problems before they occur, rather than treatment of existing diseases or conditions
- All factors that affect health, including social and economic factors, the physical environment, health behaviors, access to health care, and health equity

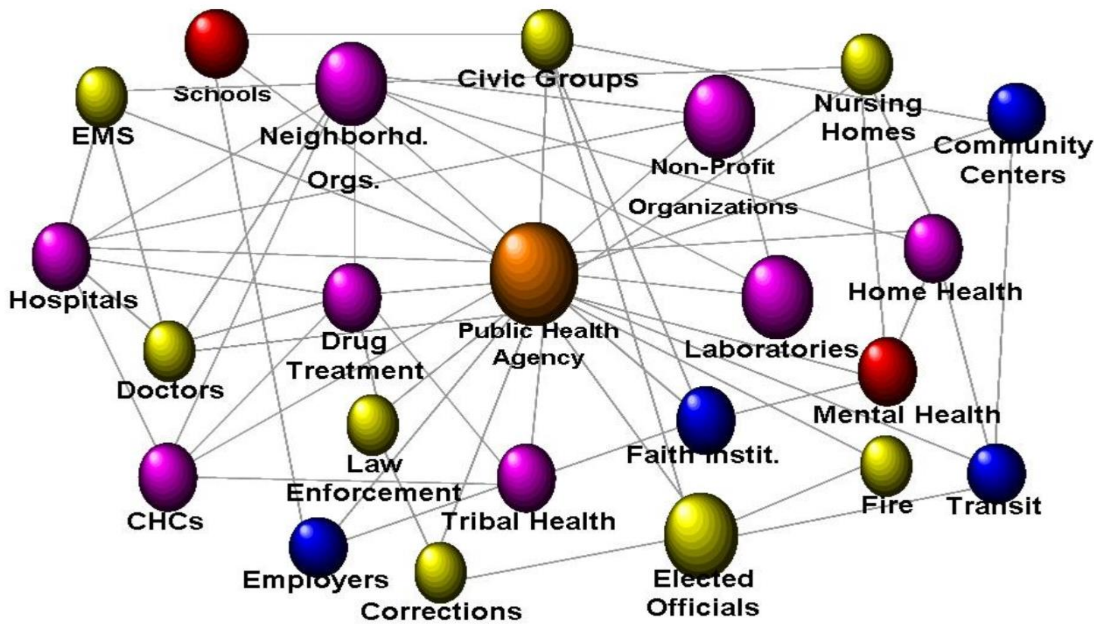
Figure 1: Medical care and public health



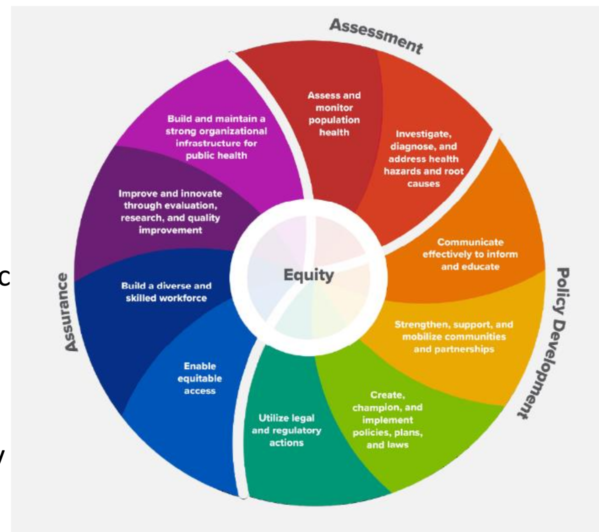
How Is Public Health Delivered?

The public health system is made up of both public and private organizations that work together to advance the overall health of the population including local, state, and federal government agencies, and nonprofit community-based groups, health care providers, public safety agencies, education and youth development agencies, recreation and arts-related organizations, economic and philanthropic organizations, and environmental agencies and organizations (**Figure 2**).

Figure 2: An example of a Public Health system, which is continually growing[3]



What Are the Core Functions And 10 Essential Public Health Services?



The three core functions of public health defined by the Institute of Medicine in 1988[4] and the Ten Essential Public Health Services developed by the Core Public Health Functions Steering Committee in 1994[3] provide a framework for public health services and responsibilities. The core functions of public health are assessment, policy development, and assurance.[4] These were updated in 2020.

10 Essential Public Health Services

Below are the 10 Essential Public Health Services and an example of what each one means for health departments.[3]

Number	Service Description	Example
1	Assess and monitor population health status, factors that influence health, and community needs and assets.	Local health department conducts a Community Health Assessment (CHA). A CHA provides a foundation for improving and promoting the health of a community. CHAs bring stakeholders together, use data to describe health status, help public health leaders apply strategic thinking to prioritize public health issues in their jurisdictions, and identify resources to address public health issues.
2	Investigate, diagnose, and address health problems and hazards affecting the population.	Local health department investigates and stops an outbreak of *E. coli*
3	Communicate effectively to inform and educate people about health, factors that influence it, and how to improve it	State and local health departments launch a public awareness campaign about the dangers of prescription painkillers
4	Strengthen, support, and mobilize communities and partnerships to improve health.	Local health department brings community partners together to address a problem in the community, for instance ways to improve early childcare for low-income families
5	Create, champion, and implement policies, plans, and laws that impact health	Policy development to make campuses tobacco-free

6	Utilize legal and regulatory actions designed to improve and protect the public's health	Local health department monitors improvements being made by a restaurant that has been cited for food safety violations
7	Assure an effective system that enables equitable access to individual health services and care needed to be healthy	Home visiting program can help mothers apply for Medicaid
8	Build and support a diverse and skilled public health workforce	State or CDC trainings on conducting an outbreak investigation, bioterrorism preparedness, or lead abatement
9	Improve and innovate public health functions through ongoing evaluation, research, and continuous quality improvement	A vaccine outreach campaign is assessed to see what impact it has had on improving vaccination rates
10	Build and maintain a strong organizational infrastructure for public health	State and local health departments implement, evaluate, and find ways to improve a health intervention to ensure fiscal responsibility and improved health outcomes.

What Is the Value of Public Health?

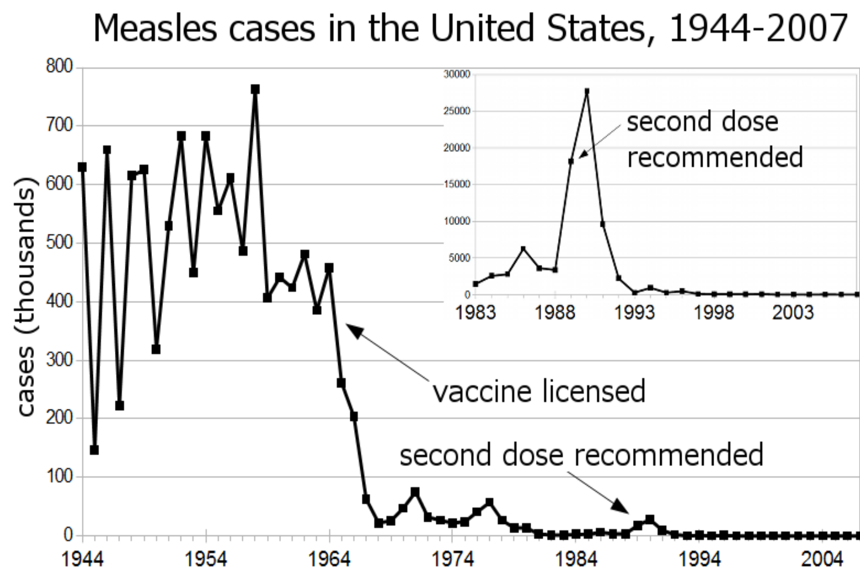
The average life expectancy of a child born in 1900 in the United States was 47.3 years. In 2010 the life average life expectancy had grown to 78.6 years.[5] Researchers estimate that public health advances were responsible for 25 of the 30 years of life gained in the 20th century.[5]

Significant Public Health Achievements in the 20th Century

Vaccinations[5]

Development and distribution of vaccines led to the eradication of smallpox globally, elimination of polio in the Americas, and a vast decrease in the number of children killed by measles, pertussis, and other diseases. Measles is a good example of how the introduction of a vaccine impacted a vaccine-preventable disease (Figure 3).

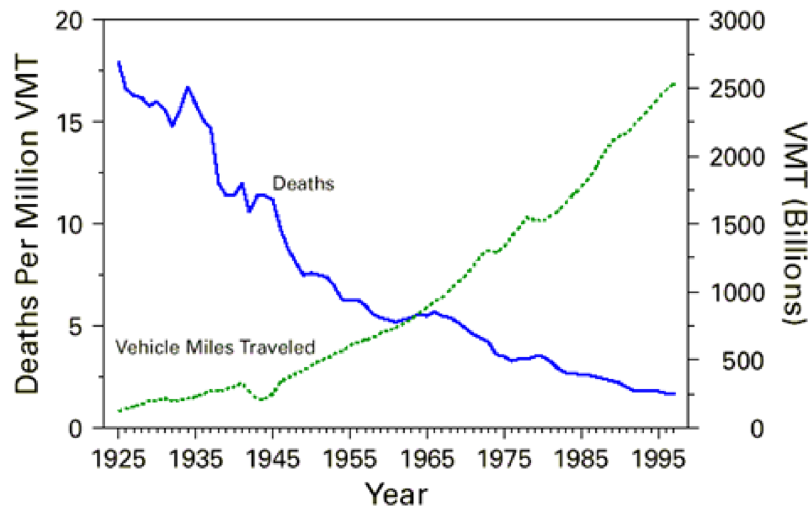
Figure 3: Measles cases in the United States, 1944–2007.[6]



Motor-vehicle safety[7]

Policy changes to make vehicles and roadways safer (mandatory seat belts and child safety seats, air bags, highway design) and education to change personal behavior (seat belt and motorcycle helmet use, enforcement of laws against drinking and driving and under aged drinking) helped to reduce the annual death rate by 90% (18 per 100 million miles traveled in 1925 to 1.7 per 100 million miles in 1997) (Figure 4).

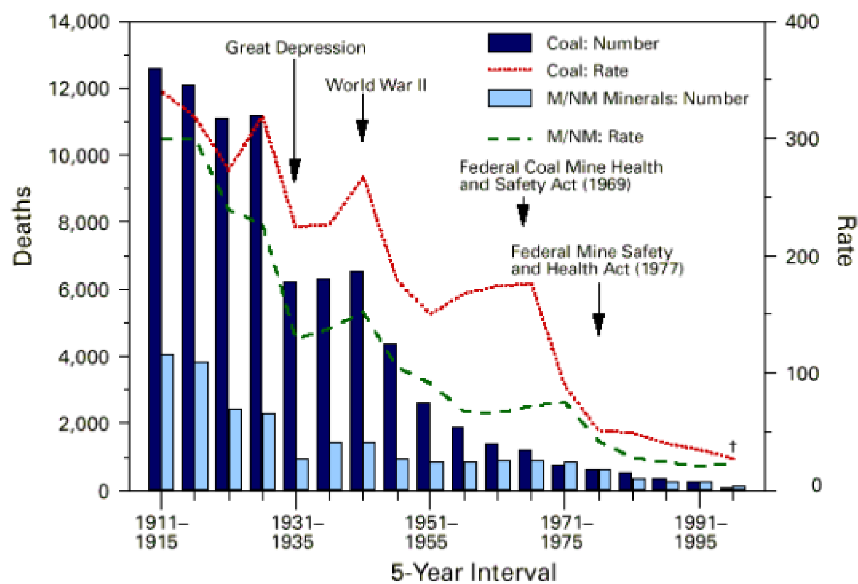
Figure 4: Motor-vehicle-related deaths per million vehicle miles traveled (VMT) and annual VMT, by year — United States, 1925–1997



Workplace safety[7]

Policy change, research, education, and regulation has led to significant reductions in work-related health problems such as coal miners' "black lung" and severe injury and death caused by on-the-job accidents (Figure 5).

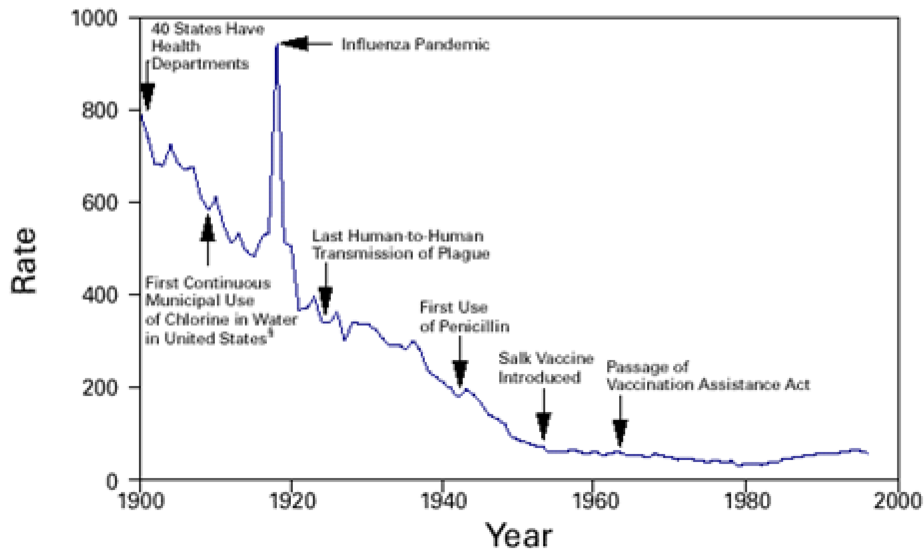
Figure 5: Number of deaths and fatality rates* in mining coal and metal/nonmetallic (M/NM) minerals, by 5-year interval — United States, 1911–1997.



Control of infectious diseases[7]

Death from infectious diseases in the United States has declined markedly during the 20th Century. Improvements in sanitation and clean water reduced deaths from diarrhea, typhoid, and cholera, which were all major causes of infant mortality. The development of antibiotics helped control tuberculosis, sexually transmitted diseases, and other common bacterial causes of death (Figure 6).

Figure 6: Crude death rate* for infectious diseases — United States, 1900–1996†

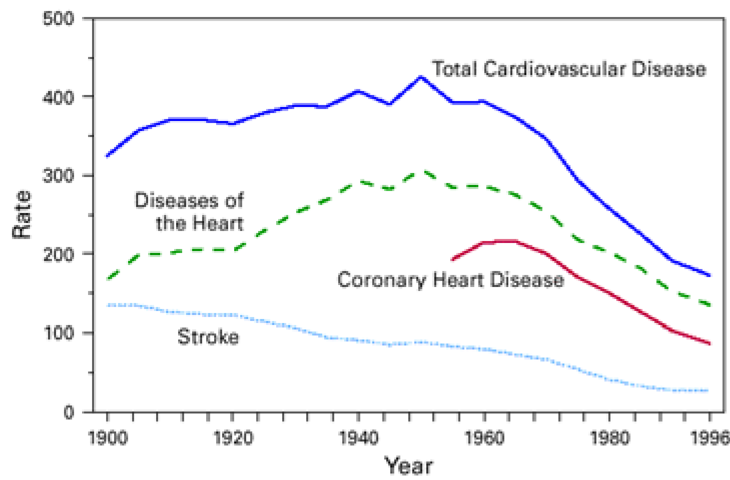


*Per 100,000 population per year.
†Adapted from Armstrong GL, Conn LA, Pinner RW. Trends in infectious disease mortality in the United States during the 20th century. JAMA 1999:281;61–6.
§American Water Works Association. Water chlorination principles and practices: AWWA manual M20. Denver, Colorado: American Water Works Association, 1973.

Declines in deaths from heart disease and stroke[7]

Even though heart disease and stroke have been among the top four causes of death in the United States since the 1920s, public health efforts and medical advances have helped reduce deaths from heart disease by 56% between 1950 and 1996 (Figure 7). Smoking cessation, blood pressure control, and decreased cholesterol levels combined with improved access to early detection and better treatment are largely responsible for these improvements.

Figure 7: Age-adjusted death rates* for total cardiovascular disease, diseases of the heart, coronary heart disease, and stroke†, by year — United States, 1900–1996.



*Per 100,000 population, standardized to the 1940 U.S. population.

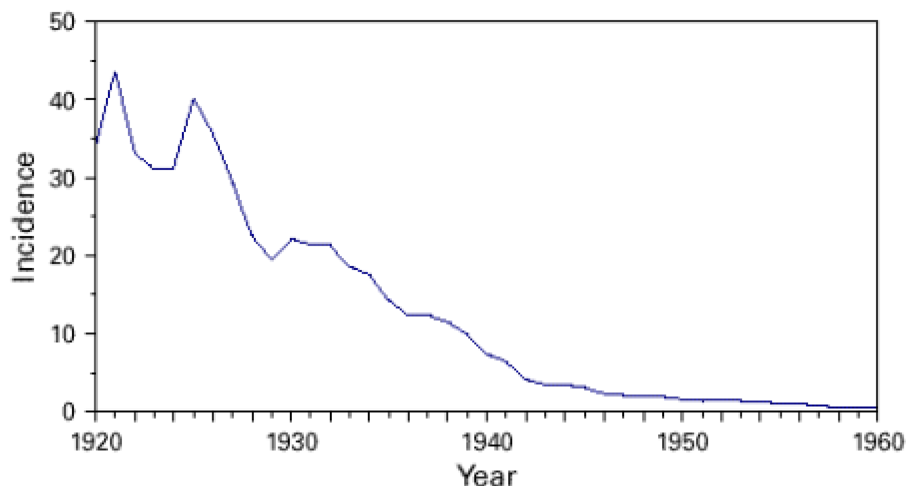
†Diseases are classified according to *International Classification of Diseases* (ICD) codes in use when the deaths were reported. ICD classification revisions occurred in 1910, 1921, 1930, 1939, 1949, 1958, 1968, and 1979. Death rates before 1933 do not include all states. Comparability ratios were applied to rates for 1970 and 1975.

Source: Adapted from reference 1; data provided by the National Heart, Lung and Blood Institute, National Institutes of Health.

Safer and healthier foods[7]

Food inspections, pasteurization, and other food supply measures have greatly decreased the number of food and water-borne diseases such as botulism, typhoid, scarlet fever, and trichinosis (Figure 8). Food fortification requirements have eliminated major nutritional deficiencies such as rickets, goiter, and pellagra.

Figure 8: Incidence* of typhoid fever, by year — United States, 1920–1960

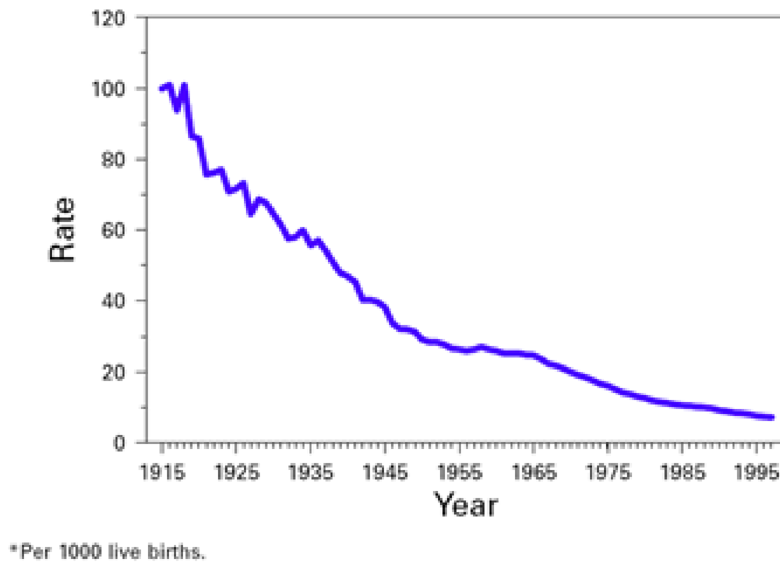


*Per 100,000 population.

Healthier mothers and babies[7]

From 1915 through 1997, the United States infant mortality rate declined more than 90%, and from 1900 through 1997, the maternal mortality rate declined almost 99% (Figure 9). These dramatic improvements are due to many factors including clean water and sanitation, improved nutrition, advances in clinical medicine and obstetric care, access to prenatal care, increased education levels, and improved living conditions. Publicly funded family planning services have greatly reduced unintended pregnancies and lengthened spacing between births. These have all helped decrease infant and maternal mortality and improved the social and economic status of women.

Figure 9: Infant mortality rate,* by year — 1915–1997



Fluoridation of drinking water[7]

Since 1945, fluoridation of water has been used as a cost-effective and effective method for preventing tooth decay and tooth loss in the United States.

Recognition of tobacco use as a health hazard[7]

Smoking is the leading cause of preventable death and disability in the United States. Education about the health hazards of tobacco use and secondhand smoke, state and federal excise taxes on cigarettes, smoke free laws, restrictions on advertising and youth access, and increased access to evidence-based tobacco cessation and prevention programs have combined to cut the percentage of adults who smoke from 42% in 1965 to 19% in 2010, preventing millions of smoking-related deaths.

Highlights of The History of Public Health In Montana

Included here is a summary of legislation, plans, and reports that have shaped public health in Montana.

1901 — State Board of Health was authorized by the state legislature

1917 — Counties and school boards given authority to employ nurses who were under the direct supervision of the state agency

1929 — Gallatin County developed the first local health department

1960 — The State Board of Health was retired

1979 —Montana Legislature removed statutory authority that local public health nurses were under the direct supervision of the state agency

1995 — With the legislative adoption of the Public Health Improvement Act in 1995, Montana's governor appointed a Public Health Improvement Task Force, consisting of public health professionals, legislators, and policy makers. The task force formulated an improvement plan consisting of 13 recommendations.

1997 — Montana was one of 14 states awarded a Turning Point Initiative Grant from the Robert Wood Johnson Foundation. Through this grant, a Strategic Plan for Public Health System Improvement in Montana was developed (2000)

2007 — Montana Public Health Modernization Act of 2007 updated Title 50 in the Montana Code Annotated

2012 — Public Health and Safety Division (PHSD) completed a state health improvement planning process with partners and key stakeholders.

2016 — Montana passed Medicaid expansion allowing more people to have access to healthcare.

2016 — Public Health and Safety Division (PHSD) became nationally accredited by the Public Health Accreditation Board (PHAB)

2018— Public Health and Safety Division (PHSD) repeated state health improvement planning process with partners and key stakeholders.

2022 – Montana Legislature passed HB 121/257 which changed local governance authorities

Table 1: History of the State Structure for Public Health

<table>
<tr><td colspan="2">STATE BOARD OF HEALTH (SBH)
(1901 – 1960)</td></tr>
<tr><td colspan="2">DEPARTMENT OF PUBLIC HEALTH (DPH)
(1961 – 1971)</td></tr>
<tr><td colspan="2">DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES (DHES)
(1972-1995)</td></tr>
<tr><td>DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ)
[includes portions of other former agencies, including DHES]
(1995- PRESENT)</td><td>DEPARTMENT OF PUBLIC HEALTH AND HUMAN SERVICES (DPHHS)
[includes portions of other former agencies, including DHES]
(1995 - PRESENT)</td></tr>
</table>

How Is Public Health Structured in Montana?

Montana is one of 27 states with a decentralized public health governance system, meaning that local public health departments are led by local government employees and local government retains authority over many decisions.[9]

The Department of Public Health and Human Services (DPHHS) consists of three branches and one division; the Operations Services Branch, the Medicaid and Health Services Branch, the Economic Security Services Branch and the Public Health and Safety Division (PHSD). PHSD leads public health efforts in Montana and provides state-level coordination for key public health services to local and tribal public health agencies. The PHSD consists of the following bureaus and offices: Financial Operations and Support Services Bureau, Chronic Disease Prevention and Health Promotion Bureau, Laboratory Services Bureau, Communicable Disease Control and Prevention Bureau, the Public Health System Improvement Office, and the Office of Epidemiology and Scientific Support. There are 40 programs organized into four bureaus and two support offices in PHSD. The Early Childhood and Family Support Division was recently created which addresses family, child, and adolescent health.

Chronic Disease Prevention and Health Promotion Bureau (CDPHPB)

Chronic Disease Prevention and Health Promotion Bureau (CDPHPB) protects and improves the health of Montanans by promoting healthy lifestyles through regular physical activity, healthy nutrition, and being free of commercial tobacco/nicotine. The CDPHPB promotes the use of clinical preventive services and community programs to support chronic disease prevention and self-management. CDPHPB also includes the Emergency Medical Services (EMS), Trauma, and Injury Prevention programs. The EMS program licenses EMS services across the state and provides coordination and training to ensure Montana has high-quality EMS services statewide. The Trauma program oversees trauma hospital designation and collaborates with facilities statewide to improve trauma care. The Injury Prevention program works with state and community partners to address leading causes of injury-related morbidity and mortality, such as fall prevention, prescription drug abuse, and poisoning. Since 2010, the Injury Prevention Program has been offering a falls prevention program to prevent and reduce falls among older Montanans.

CDPHPB has programs that serve youth and adults statewide. The Arthritis Program has served 6,400 Montanans since 2012, by offering exercise and self-management programs that help individuals manage their arthritis pain and joint symptoms. Since its inception in 2004, more than 95,000 Montanans have called the Montana Tobacco Use Prevention Program Quit Line (800-Quit-Now), and approximately 32,300 Montanans (34%) have quit using tobacco with this statewide resource. In 2019 and the Montana Quit Line launched and additional service, My Life My Quit, a specialized program for youth and teens needing help with quitting tobacco products. The Montana Cancer Control Program provides free breast and cervical cancer screenings and diagnostic services to women who are un- or under-insured, and connects them to treatment services if needed. Since its inception, the Cancer Control Program has provided cancer screenings to 34,528 women. Other programs collaborate with and support health care professionals, health care facilities, local and tribal health departments, and numerous other organizations across the state to address asthma, diabetes, and cardiovascular health. The EMS Program licenses and regulates more than 150 emergency medical services across Montana. By providing education for EMS technicians, they work to improve the quality of care provided for trauma patients.

Laboratory Services Bureau

Montana's clinical public health and environmental laboratories are located in PHSD and provide testing to support disease prevention and control efforts statewide. In 2020, the state laboratories conducted more than 300,000 tests in support of disease control programs (e.g., tuberculosis and HIV), for detection of new or emerging disease threats (COVID-19), and environmental tests in support of clean drinking water (e.g., bacterial contamination and heavy metals). In addition, newborn screening tests for 29 metabolic and genetic diseases are performed for essentially every baby born in Montana (approximately 12,500 per year).

Test results are used by clinicians to aid in diagnosing and treating patients. The state communicable disease epidemiology program, as well as local and tribal public health officials, use these laboratory results to enhance responses to disease outbreak or water contamination and to monitor disease trends.

Communicable Disease Control and Prevention Bureau (CDCPB)

The Communicable Disease Control and Prevention Bureau includes four sections: Immunization, Sexually Transmitted Diseases/HIV Prevention, Food and Consumer Safety, and Public Health Emergency Preparedness. These sections work closely with local and tribal public health agencies and other partners to respond to communicable disease reports/outbreaks and significant public health events, as well to ensure the safe operation of public establishments. In 2019, state and local public health agencies identified and responded to over 9,500 reportable diseases including 84 outbreaks sickening at least 1,500 people. In addition, a significant increase in rates of both gonorrhea and syphilis was noted in Montana, similar to increases reported in the U.S. Ensuring the safety of the state's public establishments requires the combined efforts of the state and local public health work force. The Bureau's Food and Consumer Safety Section works with local public health agencies to license and inspect over 12,000 public establishments, including restaurants, hotels, and swimming pools. The section monitors the frequency and quality of mandated inspections and ensures requirements and rules regulating business are reasonable and necessary for public safety.

Financial Operations and Support Services Bureau (FOSSB)

The Financial Operations and Support Services Bureau (FOSSB) provides financial and contract management for PHSD and, oversees the Office of Vital Records. FOSSB manages a budget of over $56 million dollars, including general fund, state special revenue, federal funds, and funding from private foundations (e.g., Montana Health Care Foundation). As of November 2021, the division has received over $254 million in COVID funding.

The Office of Vital Records (OVR) maintains vital event registration and reporting for all Montana counties. OVR collects information on individuals regarding birth, death, fetal death, adoption, marriage, marital termination, paternity and provides access to birth and death records for individuals to obtain certified copies statewide. OVR also develops and maintains statistical information and provides data and reports for use by State, Federal, and County agencies and a variety of other data users.

Epidemiology and Scientific Support Bureau (ESSB)

The Epidemiology and Scientific Support Bureau (ESSB) includes four sections: Communicable Disease Epidemiology, Environmental Health and Assessment, Infection Control and Healthcare-associated Infections Prevention, and Surveillance and Informatics. These sections work closely with local and tribal public health agencies and congregate care facilities to respond to communicable disease reports or outbreaks and significant public health events.

The Communicable Disease Epidemiology Section conducts routine surveillance of reportable conditions and provides technical assistance to local health jurisdictions with epidemiology investigations. The Environmental Health and Assessment Section works to reduce, eliminate, or prevent human exposures to toxic substances throughout Montana. Staff evaluate hazardous waste sites (e.g., Superfund sites) for hazardous substances to determine whether communities could be harmed. Staff also conduct lead poisoning surveillance and implement population-level interventions to prevent childhood lead poisoning. The Infection Control Prevention and Healthcare Associated Infection section investigates communicable disease in healthcare settings and advises on prevention and control measure to prevent infection in these settings. The Surveillance and Informatics section maintains several public health surveillance systems and leads efforts to modernize these data systems. The surveillance systems include birth and death records, hospital discharge and emergency department utilization data, the Behavioral Risk Factor Surveillance System (BRFSS) survey, Syndromic Surveillance, and the Montana Infectious Disease Information System (MIDIS).

The Bureau also maintains and updates the State Health Assessment and the State Health Improvement Plan as well as maintains a web-based public health data visualization and query tool. The Bureau also provides epidemiology and program evaluation technical support to PHSD programs and other divisions across the DPHHS, local and tribal health departments, and other organizations.

Public Health System Improvement Office (PHSIO)

Strengthening our public health system continues to be a focus for the PHSD. The Public Health Accreditation Board has established a national voluntary accreditation program for state, local, and tribal public health agencies. Montana’s citizens will benefit from public health departments that deliver contemporary public health services and meet national standards. The PHSIO provides training, technical assistance, and grant funding to local and tribal public health departments to increase their readiness for voluntary national public health accreditation. In addition, PHSIO provides board of health training opportunities.

Within the PHSD, the PHSIO is working with each program to develop and implement performance and quality improvement activities, and increase the use of evidence-based interventions. These activities are focused on bringing all public health programs and practices into alignment with national public health standards and measures.

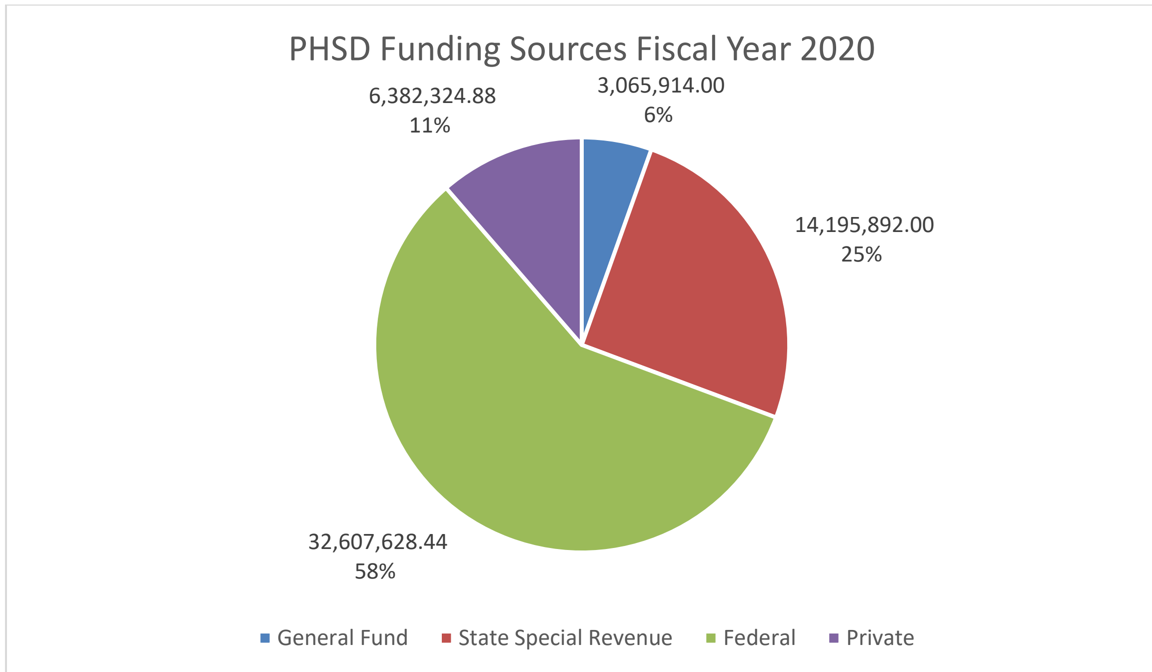
Early Childhood & Family Support Division

In January 2019, DPHHS received a Birth to Five Preschool Development Planning Grant from the Administration for Children and Families to conduct a robust needs assessment and strategic plan related to strengthening Montana's early childhood system. This work, in part, led Governor Bullock's office and the Department to initiate the development of a new division focused on early childhood and family support programs. The new division will encompass existing programs that address childcare licensing, early childhood services, intervention services for young children who have developmental delays, nutrition programs for kids, home visits, and health programs for children, teens and families to streamline, align, and share common values across the division. The Early Childhood and Family Support Division has about 100 employees and includes the Early Childhood Services Bureau, the Family and Community Health Bureau, Child Care Licensing, the No Kid Hungry program, Montana Milestones Part C, the Family Education and Support Program, and the Montana Children's Trust Fund.

How is Public Health Funded?

Governmental public health is supported by a complex mix of federal, state, and local funding sources for activities at the state and local levels. In fiscal year 2020, the majority of PHSD funding came from federal sources with the remaining amount from state sources (Figure 10). Private funding sources include non-profit organizations.

Figure 10: PHSD Sources of Funding (FY20)[10]



Local Board of Health Roles and Responsibilities

Local boards of health are responsible for assessing the health needs of their communities, developing policies and programs to meet those needs, and assuring personnel and resources are available to meet the community's public health priorities. This raises the question, "*What are the legal authorities of a board of health and what do those legal authorities mean to your role as a local board of health member*?"

First of all, what are the sources of legal authorities related to public health agencies in Montana?

1. Montana Code Annotated
2. Administrative Rules of Montana
3. Montana courts
4. Attorney General opinions

Montana Code Annotated, 2021

Most of the codes pertaining to local boards of health are in Title 50, Health and Safety Chapter 2: Local Boards of Health.[12] However, scattered throughout the statutes, including mandatory duties, are references to both local health boards and health officers. Title 50, Health and Safety Chapter 1: Administration of Public Health Laws provides additional information. [12] Montana law requires that every county or 1st or 2nd class city shall have a board of health. The law provided for flexibility in the membership and type of local board of health. [12]

Types of local boards of health in Montana:

1. County boards of health
2. City boards of health
3. City-county boards of health
4. District boards of health

County boards of health (50-2-104)

1. Required for every county
2. Consist of county commissioners and 2 members appointed by the county commissioners ***OR***
3. Minimum of five persons appointed by the county commissioners
4. Appointed members serve 3-year staggered terms
5. County commissioners establish staggered term order and all rules necessary to establish and maintain the board

City boards of health (50-2-105)

1. Required of every 1st or 2nd class city
2. Five persons appointed by the governing body of the city
3. Appointed members serve 3-year staggered terms
4. Governing body of the city shall establish staggered term order and all regulations necessary to establish and maintain the board

City-county boards of health (50-2-106)

1. Can be formed by mutual agreement between the county commissioners and the governing body of the city or cities
2. Membership consists of:
    a. One person appointed by the county commissioners
    b. One person appointed by the governing body of each city that participates in this type of board of health
    c. Additional members appointed by mutual agreement between county commissioners and governing body or bodies of each city

District boards of health (50-2-107)

1. By mutual agreement, two or more adjacent counties can unite to create a district board of health
2. 1st and 2nd class cities located in the district may elect to be included in the district
3. Membership consists of:
    a. One person appointed by county commissioners in each county in the district

   b. One person appointed by the governing body of each city that elects to be included in the district
   c. Additional members appointed by mutual agreement between county commissioners of each county in the district
4. Minimum of five persons
5. Appointed members serve 3-year staggered terms

Board funding (50-2-108)

Local board of health can be funded from the following sources:

1. General fund appropriations
2. Special levy appropriations
3. State and federal funds
4. Contributions from school boards
5. Other official and nonofficial sources

Legal Counsel (50-2-115)

The county attorney serves as legal advisor to local boards of health and represents the board of health in matters relating to the functions, powers, and duties.

Purpose of the public health system in Montana as defined in statutes

The purpose of the public health system is to provide leadership and to protect and promote the public's health by (50-1-105):

1. Promoting conditions in which people can be healthy
2. Providing or promoting the provision of public health services and functions including the 10 Essential Public Health Services (*See page 7 for the definition of the 10 Essential Public Health Services*)
3. Seeking adequate funding for services
4. Collaborating with private and public partners
5. Using the best science available
6. Ensuring public health services and functions are provided
7. Implementing public health services and functions, health promotion, and preventive health services within the state health care system

Collaborations and relationships (50-1-106)

1. Variety of agreements that may be formed among federal, state, local and tribal public health agencies to coordinate provisions of public health services
2. Agreements do not have to be with contiguous jurisdictions among:
   a. Local agencies within Montana
   b. Local agencies and tribal governments
3. Local agencies whose jurisdiction extends to a state border may form an agreement with an adjoining state
4. Can expand districts of health to allow inclusion of tribal governments

Powers and duties of a local board of health

The main duties of the local board of health are to (50-2-116):

1. Recommend to local governing body appointment of a local health officer, who must be either:
    a. A physician;
    b. A person with a master's degree in public health;
    c. A person with equivalent education and experience, as determined by DPHHS
    d. DPHHS may appoint a local health officer if the local governing authority does not
2. Elect a presiding officer and other necessary officers
3. Identify to DPHHS an administrative liaison for public health
    a. Health officer in jurisdictions with a full-time health officer ***OR***
    b. Highest ranking public health professional employed by the jurisdiction (i.e. lead local public health official)
4. Adopt bylaws to govern meetings
5. Hold regular meetings at least quarterly and special meetings as necessary
6. Identify, assess, prevent, and mitigate conditions of public health importance using current public health practices such as:
    a. Epidemiological tracking and investigation
    b. Screening and testing
    c. Isolation and quarantine
    d. Diagnosis, treatment, and case management
    e. Abatement of public health nuisances
    f. Inspections
    g. Collecting and maintaining health information
    h. Education and training of public health officials
    i. Other public health measures as allowed by law
7. Protect against the introduction and spread of communicable disease
8. Supervise inspections of public establishments for sanitary conditions
9. Pursue legal actions for violations of public health laws, rules, or local regulations
10. Propose for adoption by the local governing body sewage control regulations for buildings not subject to state review

**See 50-2-116(5) for limitations on these powers as it relates to compelling a private business to deny a customer access to the premises, access to goods or services, or the ability to access goods or services.*

Local boards of health may (50-2-116):

1. Accept and spend funds from federal or state agencies, school districts, or other persons
2. Propose for adoption by the local governing body necessary fees to administer sewage control requirements
3. Propose for adoption by the local governing body rules that do not conflict with state rules:
    a. To implement public health laws
    b. Control of communicable disease
    c. For sanitation and sewage treatment issues that might cause disease or adversely affect public health

    d. Tattooing and body piercing establishments
    e. Certain institutional controls
4. Provide other services and functions as necessary

Local board of health meetings (2-3-203; 2-3-212; 50-2-116)

Montana is among several states whose constitution and laws unambiguously require that government-decision making process be conducted openly and with reasonable opportunity for residents to participate.

1. Meetings must generally be open to the public
2. Advance notice of any matters that the board will hear or act upon must be provided to the public
3. Procedures must be in place that allow the public a reasonable opportunity to participate prior to the board making a decision of significant public interest
4. Minutes must be kept of all public meetings and made available for public inspection

Local health officer

Duties of a local health officer or their designee (50-2-118):

1. Report communicable diseases to DPHHS
2. Pursue legal action for violations of public health laws
3. Make inspections of public health importance
4. Issue orders for correction, destruction, or removal of the condition
5. Limit contact between people to control disease, including closure of buildings and canceling of events

Other legal considerations for health officers or their designees:

1. May request assistance from law enforcement (50-2-120)
2. Can issue orders to compel compliance with laws/rules (50-2-123)
3. Can order removal of prisoners from jail if a risk to the health of others (50-2-121)
4. Must maintain confidentiality of health care information (50-16-603)

Limits or restrictions on authorities of public health officials

1. Constitutional protections including individual rights and liberties
2. Must balance individual rights and liberties with need to protect the public when coercive interventions are contemplated
3. Due process as required by both federal and Montana constitutions
4. Constitutionally sound procedures must be in place when legal actions take place
5. See 50-2-118(3) and (4), which provide certain limitations on powers as it relates to compelling a private business to deny a customer access to the premises, access to goods or services, or the ability to access goods or services

Administrative Rules of Montana

Administrative rules of Montana (ARMs) are agency regulations that have the force and effect of law and generally elaborate the requirement of a law or policy. ARMs can be found at this website: http://mtrules.org/

An example of an ARM is **37.114.203** REPORTABLE DISEASES AND CONDITIONS. The local health department must report any of the diseases or conditions on that list if they occur within their jurisdiction to DPHHS.

Working with Your Local Health Department

Your local health department delivers public health services as outlined in Montana Statutes and Administrative Rules. A good working relationship with your health department is needed to be able to improve the health of the residents in your jurisdiction. Important partners in your health department include the health officer, lead local public health official, sanitarian, public health nurses, and other public health staff.

As a board member what can you do to help your local public health department?

- Ensure board of health meetings occur at least quarterly
- Attend and actively participate at the meetings
- Work with your local public health department on important public health issues such as policy development and implementation of programs
- Participate and be the champion for community health improvement and strategic planning
- Support securing funding for your local health department
- Access and use data to identify health priorities
- Review and be aware of the health status of your community
- Support your health department in their process of becoming accredited

Working with The Public Health and Safety Division (PHSD)

Defining the relationship between the local board of health and PHSD

PHSD provides oversight and guidance of public health in Montana. The DPHHS PHSD and the local boards of health have a statutory (outlined in law) relationship. Montana law authorizes local boards of health and defines their responsibilities. The Montana Constitution demands that county powers be construed liberally, which means that local boards of health exercise a broad range of authority. So ultimately, local boards of health bear a great responsibility for public health in their communities.

PHSD provides technical assistance, consultation, and funding opportunities, as described below:

- Provides oversight and guidance of the public health system in Montana
- Provides information, consultation, and support to local boards of health regarding board of health roles and responsibilities, essential public health services, and significant public health issues
- Provides technical assistance to local boards of health as they complete or update community health assessments and community health improvement plans
- Provides technical assistance as needed or requested for communicable disease issues, food safety, public health preparedness, chronic disease programs, maternal child health programs, vital statistics, laboratory services, and other public health issues as they arise.
- Provides data as requested

What should your local health department do?

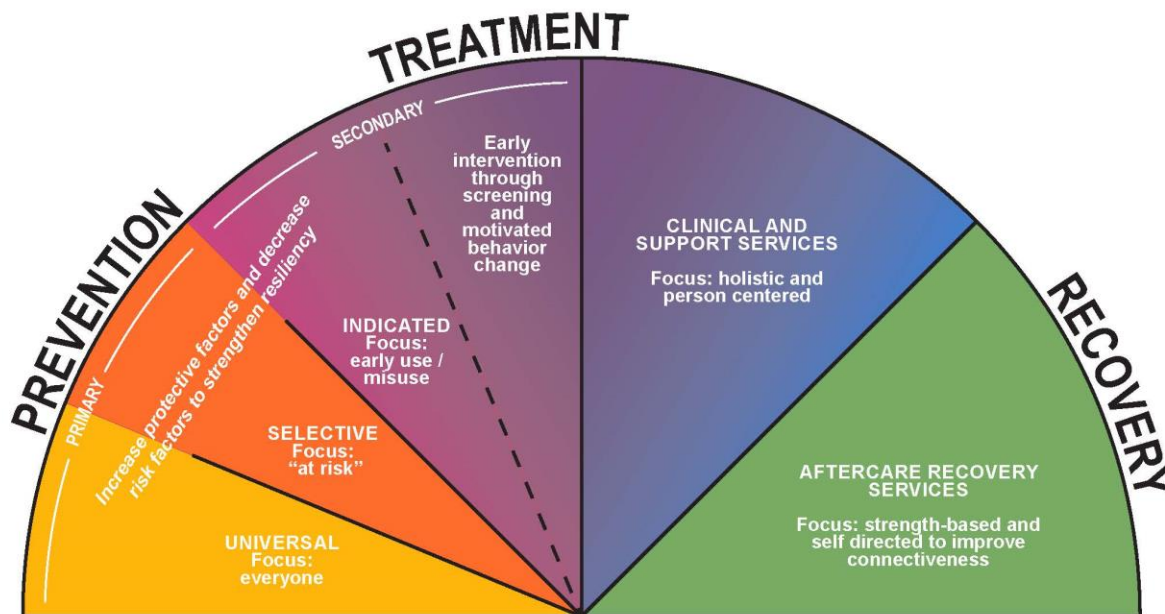
As described earlier in this document certain statutory and administrative rules exist for your local health department. PHSD is working on defining foundational standards for local public health departments in Montana. To gain an understanding of what your local health department currently does, get to know the key personnel in your health department and attend the local board of health meetings. Also, the National Public Health Accreditation Standards are a good reference for looking at standards for health departments. The standards can be used to help guide your health department.

Behavioral Health and Developmental Disabilities (BHDD) Division

The Behavioral Health and Developmental Disabilities (BHDD) Division manages program and payment for publicly funded behavioral health services, which include behavioral health and adult and youth substance use disorder (SUD) prevention and treatment programs. BHDD contracts with behavioral health providers and agencies statewide to provide community-based and inpatient services, primarily through Medicaid. Services range from prevention and early intervention services to inpatient, residential, home- and community- based, and recovery support services.

The continuum of behavioral health care is shown below in the following graphic created by the federal Substance Abuse and Mental Health Services Administration (SAMHSA).

Montana Behavioral Health Continuum of Care



All phases of the continuum improve and protect the health, well-being, and self-reliance of all Montanans.

BHDD's vision is a Montana with emotionally resilient children, where individuals can find help for mental health and substance use disorders and enter recovery without stigma.

Community-Based Substance Misuse and Abuse Prevention

Community-based prevention includes universal strategies that helps all parents raise children who are less likely to misuse substances as well as targeted interventions to help at-risk populations. Community-based

prevention promotes public health. Examples of these programs supported are ParentingMontana.org, PAX Good Behavior Game, Communities that Care, county-based prevention specialists, and the Montana Prevention Needs Assessment.

Drop-in Centers

Drop-in Centers are an evidence-based practice strategy ensure a safe place for individuals who live with a behavioral health disorder to connect with peers and connect to support services that fits their personal needs or preferences. This early intervention engages individuals in socialization, crisis mitigation, and overall quality of life improvement. There are currently 13 peer-run Drop-In Centers throughout Montana, including frontier and tribal areas.

Projects for Assistance in Transition from Homelessness (PATH)

PATH helps to provide secure, safe and stable housing to individuals with serious mental illness and who are homeless or at risk of homelessness. Through such services as housing services, job training, education services, SUD services, referral to support services, and case management, PATH links a vulnerable population to supportive services that helps improve individual and population health.

Screening, Brief Intervention, and Referral to Treatment (SBIRT)

Medicaid covers this primary-care based, evidence-based early intervention service that identifies risky substance use behaviors and uses motivational interviewing to change behaviors to prevent more severe SUDs and negative health impacts.

Suicide Prevention

For communities to be successful in addressing suicide, they need a comprehensive approach to suicide prevention and crisis intervention. As communities build out robust prevention programs, they also need to be working on developing plans around crisis intervention.

The process of building community suicide prevention efforts begins by initiating conversation and creating a team of individuals who will maintain the role of facilitating suicide prevention efforts. Involving the community by engaging stakeholders (i.e. employers, local organizations, government officials, mental health groups), hosting community meetings, formulating community goals, and working with the media can all benefit community level suicide prevention efforts. Suicide prevention efforts should be informed by the key issues faced within communities (i.e. stigma, social stressors, lack of trained mental health workers, access to mental health care), the resources already available (counseling, primary care, sports clubs, events), and the skills and strengths of individuals and organizations in the community. The World Health Organization created a Guide to Community Engagement in Suicide Prevention with comprehensive details and case examples for each step of the pathway

Depression is Treatable -- Suicide is Preventable
If you are in crisis and want help, call the Montana Suicide Prevention Lifeline, 24/7, at
1-800-273-TALK

(1-800-273-8255)
Or text “MT” to 741 741

Crisis Services

Crisis Intervention Services are a core component of the behavioral health continuum. A comprehensive and integrated crisis system is the first line of defense in preventing unnecessary threats to public and patient safety, restrictions of civil liberties, tragic and unacceptable loss of lives, and the waste of costly and finite resources. An effective behavioral health crisis system saves lives and dollars by systemically leveraging all available community resources to mitigate gaps in care and increase communication and collaboration amongst stakeholders. It can also help to provide alternatives to placement at Montana State Hospital for short-term crisis intervention, emergency detention, and court ordered detention. These services include:

- County and Tribal matching grants, a/k/a Crisis Diversion Grants for crisis intervention and jail diversion. These grants allow the coordination of several critical stakeholders including hospital systems, primary care providers, behavioral health providers, first responders, law enforcement, justice systems, and social service programs to meet local community needs;
- The 72-hour program for presumptive eligibility; and
- Secure crisis beds in crisis diversion facilities.

Treatment and Recovery Support

Treatment for Opioid Use Disorder: With funding from the Substance Abuse and Mental Health Services Administration (SAMSHA), BHDD contracts with treatment providers across the state to deliver comprehensive evidenced based treatment services that include medications, care coordination, peer support and behavioral health services. BHDD also contracts with the Montana Primary Care Association to train and support the healthcare workforce to deliver evidenced based care.

Treatment of Stimulant Use Disorders: With funding from the Substance Abuse and Mental Health Services Administration (SAMSHA), BHDD is piloting the TRUST (Treatment for Individuals who Use Stimulants) treatment program in selected treatment organizations across the state. Behavioral Health Services – link to the SAMHSA Locator for local public health to know how to find behavioral health providers in and around their counties.

Montana Medicaid Severe and Disabling Mental Illness (SDMI) 1915(c) Home and Community Based Services (HCBS) Waiver:

The SDMI HCBS waiver is a Medicaid-funded mental health program providing specialized services for Medicaid members who would otherwise require institutional level of care. These services are provided to keep members out of a higher level of care such as the Montana State Hospital, nursing homes, emergency rooms, and avoidable hospitalizations. SDMI HCBS waiver services are provided statewide, and services focus on specific specialized needs of members with mental illness, thus giving them the opportunity to remain independent and out of higher levels of care. In December 2019, the Department submitted a request to the Centers for Medicare

and Medicaid Services (CMS) to renew the SDMI HCBS waiver. CMS approved the request for a 5-year renewal of the SDMI HCBS waiver effective July 1, 2020 to June 30, 2025.

Medicaid-Funded Community-Based Treatment and Recovery Services:

Treatment and recovery mental health and SUD services are provided to the individual in his or her own community and range from outpatient therapy to the intensive programs such as the Program of Assertive Community Treatment (PACT) for mental health and Intensive Outpatient Treatment for SUD. Services include:

- psychiatry and medication management
- illness management and recovery
- SUD and mental health treatment homes
- individual and group therapy
- psychiatric rehabilitation and support
- psychiatric habilitation and support

These services are the largest component of services provided by BHDD, both by number of programs and by number of individuals receiving services. The majority of services paid for by BHDD are covered by Medicaid and Medicaid Expansion.

Recovery Support Services

Certified Behavioral Health Peer Support (CBHPPS) Services:
Identified as a need during the 2019 Legislative Session, CBHPPS is provided to adults with a severe and disabling mental illness (SDMI) and both adults and youth with SUD. The services include:

- coaching to restore skills;
- self-advocacy support;
- crisis/relapse support;
- facilitating the use of community resources; and
- restoring and facilitating natural supports and socialization.

Services are available statewide.

Peer Support

Peer Support Services are available in any community/county and are provided by a Certified Peer Support Specialist to promote empowerment, self-determination, and positive coping skills through mentoring and other activities that assist a person with severe disabling mental illness to achieve their goals for personal wellness and recovery.

Peer Support Services are multifaceted and include activities such as self-advocacy, psycho-social education, support of meaningful activities of the individual’s choosing, crisis management, effective use of mental health services, connection to resources and activities that promote recovery, and linkage and coordination with community supports and providers. The activities provided by Peer Support Services promote the development and enhancement of positive coping skills, facilitate the use of natural resources and community supports, and enhance recovery-oriented elements such as hope and self-efficacy.

Peer Support Specialists have lived experience with mental illness and mental health services, are self-identified and well-grounded in their recovery process, and have completed a Peer Certification Course approved by the Department.

Montana's Peer Support Network provides information, education, training, consultation, peer support and resources across the state using their own "lived experience" in long term recovery.

Recovery residences

The National Alliance for Recovery Residences (NARR) is a 501-c3 nonprofit organization dedicated to expanding the availability of well-operated, ethical, and supportive recovery housing. NARR works with and supports state affiliate organizations that uphold SAMSHA recognized standards through the certification of homes. Funded by the State Opioid Response grant, a Montana recovery-oriented nonprofit will become the NARR state affiliate and will adopt standards, policies, and procedures to promote and certify quality Recovery Residences. Certified homes will have access to training and technical assistance and will be eligible for future funding opportunities that will build the infrastructure needed for a self-sustaining system.

Wellness Recovery Action Plans

Wellness Recovery Action Plan (WRAP) is a simple and powerful process for creating the life and wellness you want. WRAP® is the most widely disseminated self-directed person-centered practice in the United States (Roberts & Wolfson, 2004). Currently, WRAP® is being facilitated to tens of thousands of consumers and providers, across the United States, and internationally (Copeland, 2001). Montana is currently developing a capacity of a behavioral health workforce statewide to narrow the communication gap between mental health providers /WRAP® Facilitators and services for treatment of behavioral health problems. This process will provide the necessary trainings for all three WRAP Seminars and will be held online and in person within the Central, Eastern, and Western regions, providing Montana with the tools for sustainability of WRAP services statewide starting in 2022.

Montana Department of Environmental Quality

The Department of Environmental Quality was formed with a mission to protect, sustain, and improve a clean and healthful environment to benefit present and future generations. DEQ is comprised of four divisions, and an office of Enforcement, all with oversight from the Director's office.

Director's Office

The **DEQ Director's Office** carries out the department's mission and statutory responsibilities by administering, managing, planning and evaluating total agency performance. Chris Dorrington was appointed as Director of the Montana Department of Environmental Quality by Governor Greg Gianforte in 2021. The Director's Office includes the director's staff and a centralized Legal Services Unit. The Financial Services Office is housed under the Centralized Services Division and is an extension of the director's responsibility and ability to provide budgeting, accounting, procurement, and contract management.

DEQ's **Enforcement Program** manages Department enforcement activities. This involves investigating spills and citizen complaints that allege impacts to human health or the environment; managing enforcement cases; and monitoring compliance. Enforcement consists of the Enforcement Program and administrative support services. Enforcement is organized under the Director's Office.

Centralized Services Division

The **Centralized Services Division** encompasses: the Financial Services Bureau; the Information Technology Bureau; Safety and Emergency Management; Records Management; Operations Project Management; and the Human Resources Offices.

Air, Energy, and Mining Division

The **Air, Energy & Mining Division** reviews and assesses permit and license applications to determine whether Montana environmental laws and rules have been met to protect the quality of the state's air, water, and land. The Air and Mining Bureaus work with other programs to prepare appropriate environmental review documents to comply with the Montana Environmental Policy Act. This work may include coordination and preparation of environmental assessments and environmental impact statements. The Energy Bureau offers information to citizens, schools, businesses and local and state government to conserve energy, promote renewable and alternative energy forms, while compiling statistics on the full spectrum of energy production, generation, and consumption in Montana.

Water Quality Division

The **Water Quality Division** protects, maintains, and works to improve water quality. Protecting Montana's rivers, lakes, streams and groundwater quality keeps these waters safe for a multitude of beneficial uses such as drinking water, fish habitat, recreation and irrigation. This is accomplished by developing and implementing water standards and clean water restoration plans, regulating sewage and industrial dischargers, collecting and evaluating water quality data, providing grants, low-interest loans and technical assistance.

The Water Quality Division, also administers and enforces drinking water quality standards for public water systems in Montana. The emphasizes is place on prevention of contamination through source water protection,

providing technical assistance to water systems and providing operator certification training. Funding opportunities are available to communities for infrastructure repairs and building of treatment plants.

Waste Management and Remediation Division

The **Waste Management and Remediation Division** programs focus on integrated waste management from recycling to disposal, issuance of permits, accreditations, certifications and licenses, asbestos abatement, methamphetamine clean-up, and underground storage tank leak prevention oversight. Several remediation programs within the division address risks to human health and the environment from unpermitted and historical releases of waste to the environment and return contaminated land and water to beneficial uses. These programs include Federal Superfund, State Superfund, Abandoned Mine Lands, Coal Ash Pond Remediation, Leaking Underground Storage Tanks, Brownfields, and Groundwater Remediation.

Tribal Governance

Several federally recognized Indian tribes exist in Montana. There are seven Indian reservations. Although without a land base at this time, in December 2019, the Little Shell Chippewa Tribe obtained federal recognition. Overall, there are eight tribal governing bodies.

As sovereign nations, tribes have an inherent right to self-govern. This tribal government structure is accomplished through tribal governing bodies, often referred to as Tribal Councils. Technically, they can be an Executive Board, a Business Committee, or a Community Council. There are protocols that should be followed when working with tribal governments.

A tribe's form of government is generally guided by a set of governing documents, e.g. constitutions, articles of incorporation, tribal resolutions, etc. Tribal leadership is elected and terms of service often vary between tribes. Leadership positions within a tribal council itself often differ as well. For example, a tribal chair may be voted in by membership or they could be chosen by the members of the tribal council.

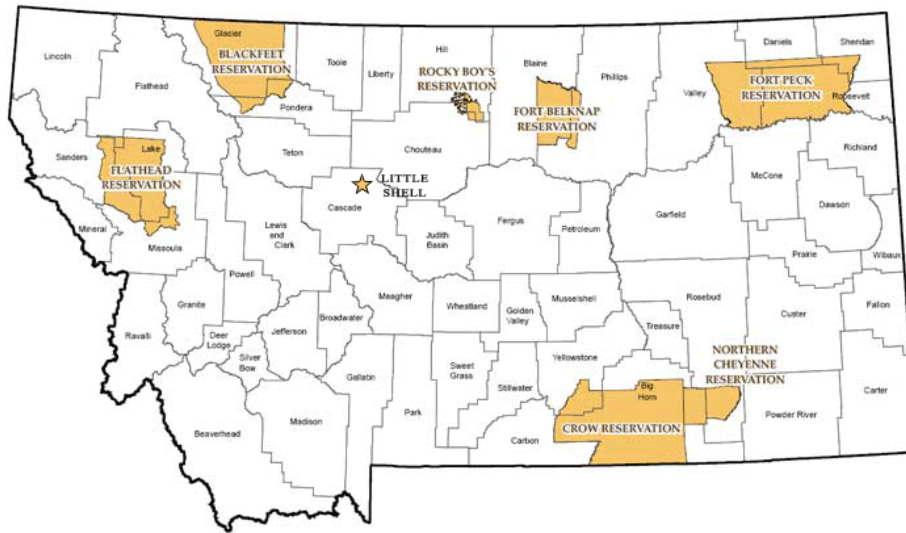
Due to longstanding treaties, agreements and executive orders, Indian tribes have a unique relationship with the federal government. As a state government, the Department of Public Health and Human Services (DPHHS) is committed to having solid relationships with the tribal governments in Montana. Our approach is to work in a manner that is respectful and genuine and honors the government to government relationship that exists between the State of Montana and each of the tribal governing bodies.

A Tribal Relations Manager position exists within the DPHHS Director's Office. This person is responsible for helping to guide the department's work with Tribes, tribal partners and Indian people and to continually build and foster meaningful relationships with leaders of each of the Tribal governments on behalf of the Director and department.

On the following page is a map of the Indian Reservations in Montana and the tribes that are a part of each of them.

More information is available about each specific tribe by following the link to the Montana Governor's Office of Indian Affairs at http://tribalnations.mt.gov/. Most tribes also have their own website which can be a valuable resource.

Indian Reservations in Montana



<u>BLACKFEET RESERVATION</u>
Home of the Blackfeet Nation headquartered in Browning, Montana

<u>CROW RESERVATION</u>
Home of the Crow Nation headquartered in Crow Agency, Montana

<u>FLATHEAD RESERVATION</u>
Home of the Confederated Salish, Pend d 'Oreille & Kootenai Tribes headquartered in Pablo, Montana

<u>FORT BELKNAP RESERVATION</u>
Home of the Gros Ventre & Assiniboine Tribes headquartered in Fort Belknap Agency, Montana

<u>FORT PECK RESERVATION</u>
Home of the Assiniboine & Sioux Tribes headquartered in Poplar, Montana

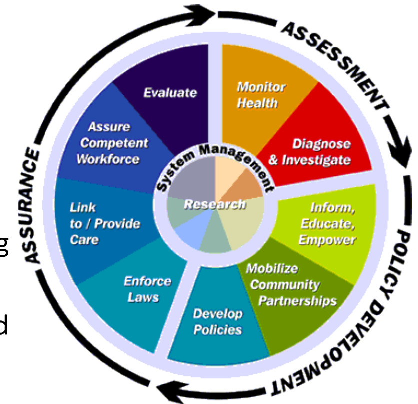
<u>NORTHERN CHEYENNE RESERVATION</u>
Home of the Northern Cheyenne Tribe headquartered in Lame Deer, Montana

<u>ROCKY BOY'S RESERVATION</u>
Home of the Chippewa Cree Tribe headquartered in Rocky Boy Agency, Montana

<u>LITTLE SHELL CHIPPEWA TRIBE</u>
Headquartered in Great Falls, Montana

Community Health Planning

A community health assessment (CHA) provides a foundation for improving and promoting the health of a community. CHAs bring stakeholders together, help public health leaders apply strategic thinking to prioritize public health issues in their jurisdiction, and identify resources to address public health issues. CHAs are part of a broader community health improvement planning (CHIP) which provides a long-term and systematic plans to address the health issues identified in the CHA.



Mobilizing for Action through Planning and Partnerships (MAPP) is a community-driven strategic planning process for improving community health that includes four assessments:[16]

- The *Community Themes and Strengths Assessment* provides a deep understanding of the issues that residents feel are important by answering the questions: "What is important to our community?", "How is quality of life perceived in our community?", and "What available assets can be used to improve community health?"
- The *Local Public Health System Assessment* focuses on the organizations that contribute to the public's health. This assessment answers the questions: "What are the components, activities, competencies, and capabilities of our local public health system?" and "How are the Essential Services being provided to our community?"
- The *Community Health Status Assessment* identifies priority community health and quality of life issues. Questions answered include: "How healthy are our residents?" and "What does the health status of our community look like?"
- The *Forces of Change Assessment* focuses on identifying forces such as legislation, technology, and other changes that affect how the public health system operates. This assessment answers the questions: "What is occurring or might occur that affects the health of our community or local public health system?" and "What specific threats or opportunities are generated by these occurrences?"

The purpose of a CHIP is to describe how the health department and the community it serves will collaborate to improve the health of the community. A CHIP is more comprehensive than the roles and responsibilities of the health department alone, and the plan's development must include participation of a broad set of stakeholders and partners. CHIP is an action-oriented plan outlining the priority community health issues and how these issues will be addressed, including strategies and measures, to ultimately improve the health of the community.

Both processes are part of the core public health functions of assessment, policy development and assurance. Not only are a CHA and a CHIP a foundation for improving health, but also they are both prerequisites for applying for public health accreditation.

National Priorities

There are three existing national frameworks highlighting current public health priorities and each have targets for assessing public progress in improving health. Healthy people 2020 is the most comprehensive framework, serving as a general compendium of national benchmarks, while the National Prevention Strategy and CDC's Winnable Battles pinpoint more specific set of goals and recommendations for reaching them.

Healthy People 2030[17]

Healthy People was developed in 1979 when Surgeon General Julius Richmond issued a landmark report titled: "Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention". Healthy People 2030 is the fifth iteration of the initiative. Healthy People 2030 contains 355 measurable objectives which set national goals and objectives to guide evidence-based policies, programs, and other actions to improve health and well-being.

For more information, visit: https://health.gov/healthypeople

HHS Strategic Plan[18]

The HHS Strategic Plan is updated every four years which describes how the agency will work to address complex, multifaceted, and evolving health and human service issues. For FY 2018-2022, the strategic goals are: 1) reform, strengthen, and modernized the nation's healthcare system; 2) protect the health of Americans where they live, learn, work and play; 3) Strengthen the economic and social well-being of Americans across the lifespan; 4) foster sound, sustained advances in science; and 5) promote effective and efficient management and stewardship.

For more information visit: https://www.hhs.gov/about/strategic-plan/index.html

CDC Strategic Framework and Priorities[19]

CDC's Strategic Framework consists of five core capabilities that enable the agency's three strategic priorities, all united behind one mission: protect America's safety, health, and security. The three strategic priorities include securing global health and America's preparedness, eliminating disease, and ending epidemics.

For more information visit: CDC Strategic Framework and Priorities | About | CDC

Montana Priorities

In 2017, the Public Health and Safety Division (PHSD) of the Montana Department of Public Health and Human Services (DPHHS) repeated the state health improvement planning process. PHSD compiled information on the health status and needs of Montanans and presented the results to key stakeholder groups and the public. The State Health Assessment (SHA) details information on Montanans access to health care, causes of death, chronic diseases, communicable diseases, maternal and child health, unintentional injury, mental health and substance abuse, and environmental health. In 2019, PHSD released the state health improvement plan (SHIP) using a coalition of partners to drive the process. The State Health Improvement Coalition worked together to determine the top health priorities based on available data from the 2017 SHA, input from stakeholders, and a prioritization matrix.

The SHA and SHIP are important because they bring partners from different sectors together to work on improving shared public health priorities. Since health starts in our homes, schools, and communities, the environments in which we live, learn, work, and play affect everyone's health and wellbeing. These partnerships are vital for ensuring that every Montanan has equal opportunity to make choices that lead to good health for them and their families.

The State Health Improvement Coalition operates under the following mission and guiding principles:

Mission: To protect and improve the health of every Montanan through evidence-based action and community engagement.

Guiding Principles:

- Use evidence-based strategies to address health priorities
- Use strategies and actions that encourage connections across our communities
- Promote health equity, value differences in cultures, attitudes and beliefs
- Strengthen our public health system to deliver results

State Health Improvement Coalition Members:

- Frontier County Health Department
- Small County Health Department
- Medium County Health Department
- Large County Health Department
- Tribal Health Departments (2 members)
- Urban Indian Center
- Association of Montana Public Health Officials
- Montana Public Health Association
- Montana Environmental Health Association
- Montana Association of Counties
- Montana Medial Association
- Montana Health Care Foundation
- Montana Hospital Association
- Montana State University, Office of Rural Health

- University of Montana, School of Public and Community Health Sciences
- Montana Department of Environmental Quality
- DPHHS Public Health and Safety Division
- DPHHS Behavioral Health and Developmental Disabilities Division
- DPHHS, Health Resources Division
- DPHHS, State Medial Officer
- Office of Public Instruction
- IHS Billings
- Disability Advocacy Representative
- Mountain Pacific Quality Health
- Montana Nonprofit Association
- Montana Department of Labor and Industry
- Montana Department of Commerce

Leading Health Concerns Identified in 52 Community Health Assessments and Community Health Needs Assessments, 2017

- Substance Use Disorders
- Overweight and Obesity
- Mental Health
- Cancer

Leading Causes of Death, Montana 2017

1. Cancer
2. Heart disease
3. Unintentional Injuries
4. Chronic Lower Respiratory Diseases
5. Stroke
6. Suicide
7. Diabetes
8. Alzheimer's Diseases
9. Influenza and Pneumonia
10. Chronic Liver Disease and Cirrhosis

For a complete report on the health of Montanans, the full SHIP, and the annual reports detailing the progress, visit: https://dphhs.mt.gov/ahealthiermontana

2019–2023 SHIP Key Issues:

Behavioral Health

This section highlights mental health, substance use disorders, opioid misuse, and suicide prevention.

Prevent and Manage Chronic Disease

This section highlights risk factors like tobacco use and obesity, and the need for cancer screening.

Motor Vehicle Crashes

This section highlights motor vehicle crashes to prevent deaths and serious injuries.

Healthy Mothers, Babies, and Youth

This section highlights planned pregnancies, teen pregnancies, healthy babies, breastfeeding, and immunizations.

Adverse Childhood Experiences (ACEs)

This section describes how ACEs affect health at every stage of life.

How were the priority areas chosen?

Members of State Health Improvement Coalition ranked 54 issues that cause illness, prevent people from taking steps to stay healthy, and affect the health of where we live, work, and play.

Rankings were based on impact on Montanans, how well we can prevent or control the issue using methods shown to work, and how ready Montana's health system is to address the issue.

The Coalition used the rankings to name five key areas for Montanans to focus on over the next five years.

Join our mailing list to receive updates on the SHIP!

- https://dphhs.mt.gov/ahealthiermontana
- Scroll to the "Join the State Health Improvement Listserv" comment box and enter your information.

To learn more, contact Anna Bradley at ABradley@mt.gov or (406) 444-5968

This brochure was made by:

Last reviewed: 1/22/2019

The 2019–2023 State Health Improvement Plan, or SHIP, names key issues where Montanans can work together to improve health.

Learn:

- What are the key health issues?
- Why do they matter?
- How can you stay informed?

Prevent Chronic Disease: Tobacco Use and Cancer

People who use tobacco products are more at risk for some causes of death and illness, like cancer.

1,600 Deaths are caused by tobacco use in Montana each year.

Data source: Centers for Disease Control and Prevention

About **1 in 5 MT adults** are current smokers, and **1 in 5 MT youth** use e-cigarettes.

Data source: MT Behavioral Risk Factor Surveillance System, 2016 and MT Youth Risk Behavior Survey, 2017

5,600 Montanans are diagnosed with cancer yearly.

Data source: MT Central Tumor Registry, 2011-2015

More Montanans can reduce their risk of cancer by being up-to-date with cancer screening guidelines.

Data source: MT Behavioral Risk Factor Surveillance System, 2016

Adverse Childhood Experiences (ACEs)

3 in 5 MT adults had an ACE score of one or higher in 2011.

Data source: MT Behavioral Risk Factor Surveillance System, 2011

People with high ACE scores are more likely to develop some chronic diseases and act in risky ways that can lead to poor health, such as smoking and using drugs.

Behavioral Health: Mental Health & Substance Use Disorder (SUD)

Montana communities said poor mental health and SUD are some of their top health concerns.

84,000 Montana adults report frequent mental distress.

Data source: MT Behavioral Risk Factor Surveillance System, 2016

60,000 Montanans needed but did not receive treatment for SUD.

Data source: DPHHS internal analysis, 2017

"Over the next five years, we will emphasize creative collaborations with community partners across Montana to achieve our objectives in the **State Health Improvement Plan**. We also call on the citizens of Montana to **take action to maintain and improve their own health and that of their families.**"

Sheila Hogan, Director
Dept of Public Health and Human Services

Motor Vehicle Crashes (MVCs)

MVCs cause most deaths from unintentional injuries in Montana. American Indians and people living in rural places are affected by MVCs more than other Montanans.

200 Deaths are caused by MVCs every year.

Data source: MT Office of Vital Statistics, 2011-2015

Use your seabelt. Ask a sober person to drive. Don't text and drive.

Prevent Chronic Disease: Overweight and Obesity

People who are obese are more at risk for heart disease, stroke, arthritis, diabetes, some cancers, mental illness, and more.

1 in 4 MT adults are obese.

American Indian adults and people living with a disability are much more likely to live with obesity.

Data source: MT Behavioral Risk Factor Surveillance System, 2016

Prevent	Control
Lose weight	Seek help from health professionals
Eat healthy	Eat healthy
Be active	Stay active

3 in 4 MT adults do not get as much exercise as they need.

Data source: MT Behavioral Risk Factor Surveillance System, 2016

Healthy Mothers, Babies, and Youth

Unplanned pregnancies can cause premature birth, low birth weight, and poor mental health. Women with unplanned pregnancies are more likely to delay prenatal care, smoke, and/or drink alcohol while pregnant.

Among American Indian women and young adult women (aged 18 to 24), **1 in 3** say their pregnancy was planned.

Data source: Health Survey of Montana's Mothers and Babies, 2015

Public Health and Safety Division's Strategic Plan

The strategic plan developed by PHSD is a commitment to improve and protect the health and safety of Montanans by creating conditions for healthy living.

PHSD MISSSION: Improve and protect the health of Montanans by ADVANCING conditions for healthy living.

The plan outlines key result areas that align with the vision and mission of PHSD. Metrics are tracked over time to determine if PHSD has met the targets, thereby holding PHSD accountable for achieving measurable health improvements in Montana's population.

PHSD VISION: Healthy people in healthy communities.

The strategic plan is organized into six priority areas with corresponding goals, strategies, objectives and metrics. The priority areas include: 1) policy development and enforcement 2) disease and injury prevention and control, and health promotion, 3) health services, particularly clinical preventive services, 4) assessment and surveillance, 5) the public health system capacity, and 6) internal operations and financial systems.

For more information on the strategic plan, visit: 2019-2023 Strategic Plan (mt.gov)

Public Health Accreditation

The goal of the voluntary national accreditation program is to improve and protect the health of the public by advancing the quality and performance of Tribal, local, state, and territorial public health departments.[21] PHAB's public health department accreditation process seeks to advance quality and performance within public health departments.[21] Accreditation standards define the expectations for all public health departments that seek to become accredited. National public health department accreditation has been developed because of the desire to improve service, value, and accountability to stakeholders.[21]

What is public health department accreditation?[21]

- The measurement of health department performance against a set of nationally recognized, practice-focused and evidenced-based standards.
- The issuance of recognition of achievement of accreditation within a specified time frame by a nationally recognized entity.
- The continual development, revision, and distribution of public health standards.

In Montana there are already local health departments that have been accredited by PHAB. PHSD and many other local health departments in Montana are in the process of pursuing accreditation. There are many state and local resources available to help you in working towards accreditation for your health department.

For more Montana specific resources and information see: https://dphhs.mt.gov/publichealth/buildinghealthysystems

For more on PHAB information: http://www.phaboard.org/

Glossary

Accreditation: The development of a set of standards and a process to measure health department performance against those standards.

Assessment: One of the three core functions in public health. The regular collection, analysis, and sharing of information about health conditions, risks, and resources in a community. Assessment is needed to identify health problems and priorities and resources available to address the priorities.

Assurance: One of the three core functions in public health. Making sure that all populations have access to appropriate and cost-effective care, including health promotion and disease prevention services. The services are assured by encouraging actions by others, by collaboration with other organizations, by requiring action through regulation, or by direct provision of services.

Bioterrorism: The intentional use of any microorganism, virus, infectious substance, or biological product that may be engineered as a result of biotechnology, or any naturally occurring or bio-engineered component of any such microorganism, virus, infectious substance, or biological product, to cause death, disease, or other biological malfunction in a human, an animal, a plant, or another living organism in order to influence the conduct of government or to intimidate or coerce a civilian population.

Capacity: The ability to perform the core public health functions of assessment, policy development, and assurance on a continuous, consistent basis, made possible by maintenance of the basic infrastructure of the public health system, including human capital and technology resources

Chronic disease: A disease that has one or more of the following characteristics: it is permanent, leaves residual disability, is caused by nonreversible pathological alteration, requires special training of a patient for rehabilitation, or may be expected to require a long period of supervision, observation, or care. Examples include heart disease, stroke, cancer, diabetes, arthritis, respiratory diseases, mental illness, drug and alcohol addiction, and some dental conditions.

Communicable disease: Diseases that can be transmitted from one person or animal to another, also known as infectious diseases.

Clinical services/medical services: Care administered to an individual to treat an illness or injury.

Determinants of health: The range of personal, social, economic, and environmental factors that determine the health status of individuals or populations.

Disease: A state of dysfunction of organs or organ systems that can result in a diminished quality of life.

Disease management: To assist an individual to reach his or her optimum level of wellness and functional capability as a way to improve quality of health and lower health care costs

Epidemic: The occurrence of more cases of a disease than expected in a given area or among a specific group of people over a particular time period.

Epidemiology: The study of the distribution and determinants of health-related states or events in specified populations, and the application of this study to the control of health problems.

Foodborne illness: Illness caused by the transfer of disease organisms or toxins from food to humans.

Health: The state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity.

Health disparities: Differences in morbidity and mortality due to various causes experienced by specific sub-populations.

Health education: Any combination of learning opportunities designed to facilitate voluntary adaptations of behavior (in individuals, groups, or communities) conducive to health

Health equity: Equal opportunity for members of all populations to disease prevention, healthy outcomes, or access to health care, regardless of race gender, nationality, age, ethnicity, religion, sexual orientation, immigrant status, language skills, health status, or socioeconomic status.

Health promotion: Any combination of health education and related organizational, political and economic interventions designed to facilitate behavioral and environmental adaptations that will improve or protect health.

Health status indicators: Measurements of the state of health of a specific group or population

Incidence: The number of new cases of a disease in a defined time period. It is often expressed as a rate.

Infant mortality rate: The number of live-born infants who die before their first birthday per 1,000 live births

Infectious: Capable of causing infection or disease by entrance of organisms (e.g., bacteria, viruses, protozoan, fungi) into the body, which then grow and multiple. Often used synonymously with "communicable".

Intervention: A term used in public health to describe a program or policy designed to have an effect on a health problem. Health interventions include health promotion, specific protection, early case finding and prompt treatment, disability limitation and rehabilitation.

Infrastructure: The human, organizational, information and fiscal resources of the public health system that provide the capacity for the system to carry out its functions.

Isolation: The separation of known infected people in such places and under such conditions as to prevent or limit the transmission of the infectious agent.

Morbidity: The state of being diseased or unhealthy within a population, often expressed as a rate.

Mortality: The number of deaths in a given population, often expressed as a rate

Non-infectious: Not spread by infectious agents, often used synonymously with non-communicable.

Outbreak: The occurrence of more cases of a disease than normally expected within a specific place or group of people over a given period of time**.**

Outcomes: These are the indicators of health status, risk reduction, and quality of life enhancement.

Pandemic: An epidemic occurring over a very wide area (several countries or continents) and usually affecting a large proportion of the population.

Pathogen: An agent (e.g., bacteria, virus, fungi, protozoan) that causes disease.

Population based: Pertaining to the entire population in a particular area. Population-based public health services extend beyond medical treatment by targeting underlying risks, such as tobacco use, drug and alcohol use, diet and sedentary lifestyles, and environmental factors.

Prevalence: The proportion of a population found to have a condition typically a disease or a risk factor. It is often expressed as a rate.

Prevention: A systematic process that promotes healthy behaviors and reduces the likelihood or frequency of an incident, condition, or illness. Actions taken to reduce susceptibility or exposure to health problems (primary prevention), detect and treat disease in early stages (secondary prevention), or alleviate the effects of disease and injury (tertiary prevention).

Public health: Activities that society does collectively to assure the conditions in which people can be healthy. This includes organized community efforts to prevent, identify, preempt and counter threats to the public's health. Public health organizations include government agencies at the federal, state, and local levels, as well as nongovernmental organizations that are working to promote health and prevent disease and injury within entire communities or population groups.

Public health department: Local (county, combined city-county, or multi-county) health agency, operated by local government, with oversight and direction from a local board of health, which provides public health services throughout a defined geographic area.

Public health practice: Organizational practices or processes that are necessary and sufficient to assure that the core functions of public health are being carried out effectively.

Quality assurance: Monitoring and maintaining the quality of public health services

Quarantine: The restriction of the activities of healthy people who have been exposed to a communicable disease, during its period of communicability, to prevent disease transmission

Rate: The measure of the intensity of the occurrence of an event. They are usually expressed using a standard denominator such as 1,000 or 100,000 people

Risk assessment: Identifying and measuring the presence of direct causes and risk factors that, based on scientific evidence or theory, are thought to directly influence the level of a specific health problem.

Risk factor: A variable associated with an increased risk of disease or infection.

Screening: The use of technology and procedures to differentiate those individuals with signs or symptoms of a disease from those less likely to have the disease

Standards: Accepted measures of comparison that have quantitative or qualitative value

Surveillance: Systematic monitoring of the health status of a population.

Vital statistics: Systematically tabulated information about births, marriages, divorces, and deaths, based on registration of these vital events.

Resources

Federal Agencies

Centers for Disease Control and Prevention (CDC)
www.cdc.gov
A wealth of information can be accessed at this web site including data and statistics; information about funding opportunities; health topic fact sheets; current health news; publications, software, and other products; subscription services to CDC publications; and links to many other public health partners across the country

Food and Drug Administration (FDA)
www.fda.gov
This site contains information on assuring the safety, efficacy, and security of human and veterinary drugs, biologic products, medical devices, the nation's food supply, cosmetics, and products that emit radiation

US. Department of Health and Human Services (DHHS)
www.dhhs.gov
This site contains links to various DHHS agencies including Administration for Children and Families, Administration on Aging, Centers for Disease Control and Prevention, Food and Drug Administration, Health Care Financing Administration, Health Resources and Services Administration, National Institutes of Health, and Substance Abuse and Mental Health Services Administration.

Health Resources and Services Administration (HRSA)
www.hrsa.gov
This site contains information and links about a variety of federally supported programs including maternal and child health, rural health, women's health, and many others. This site also features an information center with publications, resources and referrals on health care services for low-income, uninsured individuals and those with special health care needs.

United States Department of Agriculture
www.usda.gov
This site contains information and links for nutritional assistance (including Food Stamps and the WIC Program), initiatives to reduce hunger and food insecurity, 2010 dietary guidelines, and information about the U.S. food supply and nutrition survey data.

Environmental Protection Agency
www.epa.gov
This website contains information and links on protecting human health and the environment

State Agencies and Partners

Montana Department of Public Health and Human Services
http://www.dphhs.mt.gov/
This website provides information and access to resources such as news and advisories, PHSD's strategic plan, links to the bureaus and offices, frequently asked questions, links to the programs, and online resources including health resources and data.

Montana Department of Environmental Quality
http://deq.mt.gov/
This website contains information about programs addressing air quality, water quality, recycling, and permits.

Montana Department of Livestock
http://liv.mt.gov
This website contains information about animal health.

Montana Department of Agriculture
http://agr.mt.gov/
This website contains information for businesses, producers and consumers. There is information about pesticide use, crops, organically produced food, noxious weeds, farmers markets, and much more.

Montana Department of Fish, Wildlife and Parks
http://fwp.mt.gov/
This website contains information about Montana's wildlife and fish.

State of Montana
http://mt.gov/
Go to this site to find links to the branch of state government or state agency that has the information you need.

Professional Associations and Resources

Association of State and Territorial Health Officials
www.astho.org
This website contains information on current issues, training opportunities, publications and resources, and public health policy.

American Public Health Association
http://www.apha.org/
This website provides information about priorities for public health, conferences, and links to state public health associations, the World Federation of Public Health Associations, publications, public health policy issues, and many other resources.

Council of State and Territorial Epidemiologists
CSTE is an organization of member states and territories representing public health epidemiologists. The website provides information and resources for public health epidemiology.
https://www.cste.org/page/About_CSTE

Montana Environmental Health Association
http://www.mehaweb.org/
This website provides valuable resources on environmental issues.

Montana Public Health Association
https://www.mtpha.com/
This website included information on public health issues in Montana, annual conference information, and other news and hot topics.

Mobilizing for Action through Planning and Partnerships (MAPP)
https://www.naccho.org/programs/public-health-infrastructure/performance-improvement/community-health-assessment/mapp
This community-driven strategic planning process is available from the National Association of County and City Health Officials (NACCHO).

National Association of County and City Health Officials (NACCHO)
www.naccho.org
This website provides information about local boards of health resources, training opportunities, projects, and affiliated organizations.

National Environmental Health (NEHA)
www.neha.org
This website contains information on environmental credentialing and certification, upcoming training opportunities, publications, and related links.

Association of Montana Public Health Officials (AMPHO)
www.ampho.org
This website contains links and news about public health in Montana.

Northwest Center for Public Health Practice
http://www.nwcphp.org/
This website contains training opportunities, research, evaluation, news and links.

National Association of Local Boards of Health (NALBOH)
www.nalboh.org
This website contains information about local board of health resources, training opportunities, projects and affiliated organizations.

Standards

Public Health Accreditation
www.phaboard.org
This website contains information regarding a national voluntary accreditation program for state, local, territorial, and tribal public health departments.

Public Health Acronyms

ACA	Affordable Care Act
AMPHO	Association of Montana Public Health Officers
APHA	American Public Health Association
APHIS	Animal Plant Health Inspection Service
BOH	Board of Health
BRFSS	Behavioral Risk Factor Surveillance System
CDC	Centers for Disease Control and Prevention
CDCPB	Communicable Disease Control and Prevention Bureau
CDPHPB	Chronic Disease Prevention and Health Promotion Bureau
DEQ	Department of Environmental Quality
DLI	Department of Labor and Industry
DOL	Department of Livestock
DPHHS	Department of Public Health and Human Services
EPA	Environmental Protection Agency
FCHB	Family and Community Health Bureau
FDA	Food and Drug Administration
FOSSB	Financial, Operations, and Support Services Bureau
FSIS	Food Safety Inspection Service
FWP	Fish, Wildlife and Parks
HHS	Health and Human Services
HO	Health Officer
HRSA	Health Resources and Services Administration
IHS	Indian Health Services
IOM	Institute of Medicine
LSB	Laboratory Services Bureau
MEHA	Montana Environmental Health Association
MIDIS	Montana Infectious Disease
MPHA	Montana Public Health Association
NACCHO	National Association of County and City Health Officials

NALBOH	National Association of Local Boards of Health
NCHS	National Center for Health Statistics
NCI	National Cancer Institute
NIH	National Institutes of Health
OESS	Office of Epidemiology and Scientific Support
OPHSI	Office of Public Health System Improvement
PHAB	Public Health Accreditation Board
PHSD	Public Health Safety Division
PHN	Public Health Nursing
RMTEC	Rocky Mountain Tribal Epidemiology Center
TLC	Tribal Leaders Council
USDA	United States Department of Agriculture
USPHS	United States Public Health Service
WHO	World Health Organization
WIC	Special Supplemental Nutrition Program for Women, Infants, and Children

Example Board of Health orientation checklist

Topic	By Whom	Date
BOH responsibilities including Montana Code Chapter 50 and Montana Administrative Code Chapter		
Member responsibilities		
Meeting schedule and location		
Local Board of Health Guidebook		
Core public health functions		
Ten essential public health services		
DPHHS Strategic Plan		
Public health services provided by local health department		
Funding of public health for the jurisdiction		
Review of policies and budget for local health department		
If applicable: county community health assessment and health improvement plan		

**Adopted from the Guidebook for Iowa Boards of Health, 2011.*

Example of a Board of Health — Self Evaluation

As a BOARD OF HEALTH MEMBER…….

1. Do you know under what legal authority you operate as a board? YES or NO

Comments:

2. Are you familiar with Montana Code Annotated chapter 50 and Montana Administrative Rules Chapter X? YES or NO

Comments:

3. Do you know what legal counsel is available and appropriate for different legal issues? YES or NO

Comments:

4. Do you know who your constituents are? YES or NO

Comments:

5. Do you know and work with your community partners? (Others in the community who are also concerned about the health of residents) YES or NO

Comments:

6. Do you understand the Core Public Health Functions and the Ten Essential Public Health Services as they relate to the board? YES or NO

Comments:

7. Do you understand the Core Public Health Functions and the Ten Essential Public Health Services as they relate to your partners and community? YES or NO

Comments:

8. Do you ask for and receive information that will assist you to perform you board duties? YES or NO

Comments:

9. Do you have an adequate orientation for your board members? YES or NO

Comments:

10. Do you routinely receive fiscal information that helps you oversee public health in your jurisdiction? YES or NO

Comments:

11. Do you regularly monitor the impact of public health programs in your jurisdiction? Do you expect time limited and measurable objectives related to you public health programs? YES or NO

Comments:

12. Do you use appropriate, scientific, and community-driven data and information to make decisions, develop strategic planning and fulfil your role of assessment, assurance, and policy development? YES OR NO

Comments:

13. Do you have a special system to annually review the public health programs in your jurisdiction? Does this evaluation system include use of sound data and reasonable and measurable agency and program objectives? YES or NO

Comments:

14. Do you fulfill the requirements as a reliable board of health member through your commitment to regular attendance and participation at the board of health meeting? YES or NO

Comments:

15. Do you feel the work of the board, and your work on the board, makes an important difference? YES or NO

Comments:

**Adopted from the Guidebook for Iowa Boards of Health, 2011.*

National Association of Local Boards of Health (NALBOH) Resources

Six Functions of Public Health Governance: https://cdn.ymaws.com/nalboh.site-ym.com/resource/resmgr/Docs/Governance_Functions.pdf

Board of Health Evaluation Checklist: https://cdn.ymaws.com/nalboh.site-ym.com/resource/resmgr/docs/Orientation_CheckList.pdf

NALBOH Self-Evaluation & Enhancement Tool

Indicator	Grade (A+ to F)	What can we do better? How can we improve? Comments?
1 – The frequency & duration of our board of director meetings are appropriate to effectively carry out your roles & responsibilities.		
2 – I effectively represent the interests and concerns of board of health members across the nation during board discussions.		
3 – The expectations of what each NALBOH board member should do, get, and give, are clearly defined.		
4 – As a NALBOH board member, I feel valued, engaged, and properly utilized.		

Indicator	Grade (A+ to F)	What can we do better? How can we improve? Comments?
5 – NALBOH board member and staff roles are clearly defined, respected, and complement each other.		
6 – I am confident that my colleagues' intentions are trustworthy and there is no reason to be protective or careful when interacting with the board.		
7 – Our board holds its members accountable. Poor performers sense pressure to improve and potentially problematic actions are identified quickly. Mediocrity is unacceptable.		
8 – I actively participate in identifying individuals to recommend as potential directors and/or committee members.		
9 – The current board structure and composition supports and advances NALBOH's mission and strategic goals.		
10 – There is a long list of qualified volunteers ready and willing to serve in committee and board leadership positions.		

Indicator	Grade (A+ to F)	What can we do better? How can we improve? Comments?
11 – Rate the overall effectiveness of the NALBOH Board of Directors.		
12 – Serving on the NALBOH board of directors is productive and I am engaged and involved as a director on the board.		
13 – The current NALBOH committee structure and activities support and contribute to the board's productivity to advance NALBOH's mission and goals.		
14 – All committees have a well defined purpose and a stated annual plan of work.		
15 – My participation on NALBOH committees is productive and I am engaged and involved in my committee work and responsibilities.		

16 – What is the one thing NALBOH board members are doing now that you think we should CONTINUE doing?	
17 – What is the one thing NALBOH board members are doing now that you think we should STOP doing?	
18 – What is the one thing NALBOH board members are NOT doing that you think we should START doing?	

PHSD Organizational Chart

PHSD Administrator & State Health Officer
Todd Harwell

State Medical Officer
Maggie Cook-Shimanek

Chronic Disease Prevention and Health Promotion Bureau — Stacy Campbell
- Arthritis, Asthma control, Cancer Control, Cardiovascular Health, CONNECT, Diabetes, Disability & Health, EMS & Trauma, Injury Prevention, School Health, Tobacco Use Prevention, Nutrition & Physical Activity, Worksite Wellness

Communicable Disease Control and Prevention Bureau — Bekki Kirsch-Wehner
- Communicable Disease Epidemiology
- Food and Consumer Safety
- Immunization
- STD/HIV Prevention
- Emergency Preparedness

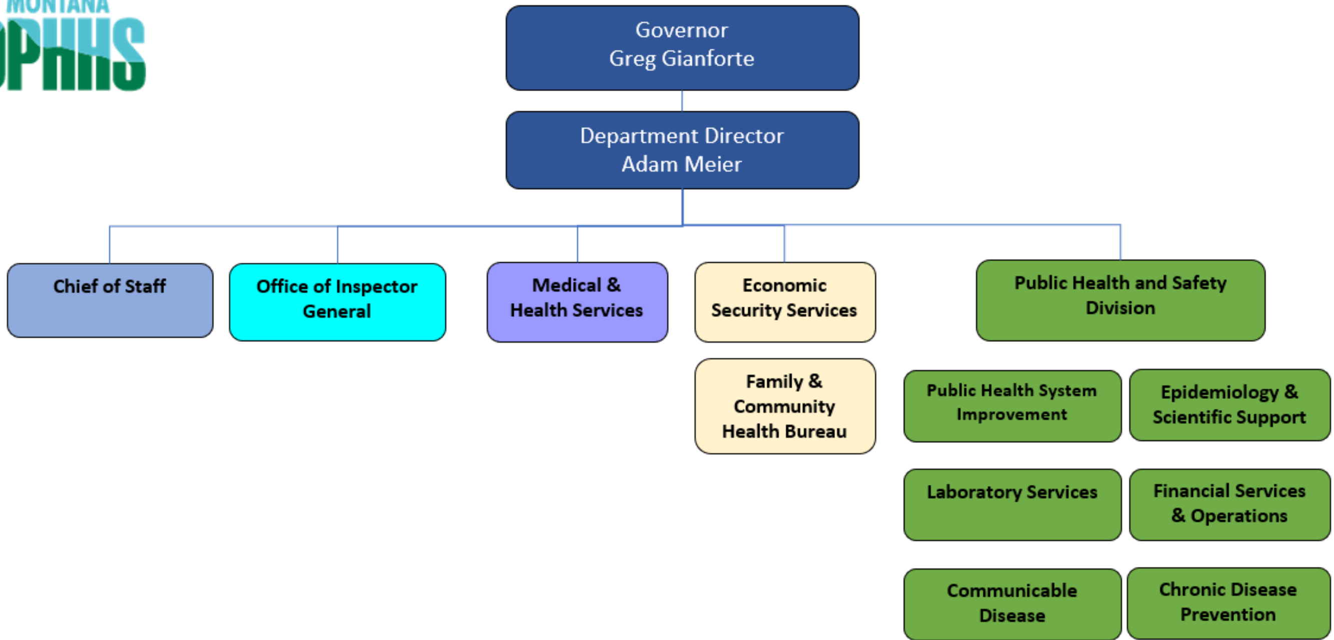
Laboratory Services Bureau — Debbie Gibson
- Public health laboratory
- Environmental laboratory
- Laboratory system improvement
- Financial Support

Epidemiology & Scientific Support Bureau — Laura Williamson
- ICP/HAI
- Communicable Disease Epidemiology
- Surveillance & Informatics
- Environmental Health Assessment

Public Health System Improvement Office — Terry Ray
- Local & Tribal Support
- Public Health Accreditation
- Performance Mgmt. & Quality Improvement
- Workforce Development

Financial and Operations Bureau — Janae Grotbo
- Financial Operations
- Vital Records

DPHHS Organizational Chart



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