

Time Line For Submitting your County Report and Plan

October 1, 2001	<u>Deadline - 6 Copies</u> of your report and plan must be US postmarked by this date and sent to the HPDP Division office at the address listed below. Reports and plans not US postmarked by this date will not be accepted and funding will not be provided.
October-November	Evaluation of your report and plan by the State Emergency Medical and Trauma Advisory Council.
November	You will be informed as to the acceptance of your report and plan, or requested to provide additional information and/or revisions.
December 1	Revised copies of your report and plan must be mailed to the address below and US postmarked no later than December 1.
December	Evaluation of resubmitted plans
January	Payments will be made to Counties that have complied with the requirements of the law.
<u>Mail your plan to:</u>	The Department of Public Health & Environment Health Promotion and Disease Prevention Division Prehospital Care Program - Grants Manager 4300 Cherry Creek Drive South, HPDPD-PCP-A2 Denver, CO

80246-1530

Colorado Department of Public Health and Environment

County Subsidy Program

Application

Please complete the tables below with the appropriate information - include the county person responsible for submitting the application followed by the county financial coordinator.

Subsidy Plan Coordinator

County: BOULDER		TAXID:
Contacts: Rick Dirr, EMS Committee Co-Chair P.O. Box 155, Nederland, CO 80466		(303) 258-9161 rickdirr@nfpd.org
Claudia Willis Bunch, EMS Committee Co-Chair P.O. Box 130, Jamestown, CO 80455		(303) 459-0208 claud1@mindspring.net
Dave Booton, BCSO Emergency Services 1777 6 th ST., Boulder, CO 80303		(303) 441-3625 dsbsh@co.boulder.co.us

County Financial Coordinator

County: Boulder County		Federal Tax ID: 84- 6000748
Contact Person: Katherine LaFavor		Title: County Grants Accountant
Mailing Address: P.O. Box 471	City: Boulder, CO	Zip Code: 80306
Phone: 303- 441- 4505	FAX: 303- 441- 4524	E-mail: khlfb@co.boulder.co.us

County Commissioner

County: Boulder County		Federal Tax ID: 84- 6000748
Contact Person: Jana Mendez		Title: County Commissioner
Mailing Address: 1325 Pearl Street	City: Boulder, CO	Zip Code: 80306

Section I

Licensing and Inspection

Phone: 303-441-4503

FAX:

E-mail:

1.1 County Resolution, Laws, or Ordinances

Please answer the following questions regarding your current regulations governing ambulance services.

County resolutions need to be reviewed on a regular basis. Please indicate the date of your last review:

1.2 Agency Responsible for Licensing, Inspecting and Regulating Ambulance Services

Agency or Government Entity: Boulder County Sheriff's Department

Contact Person: Lieutenant Larry Stern

Title: Director, Office of Emergency Management

Address: 1805 33rd Street Boulder, CO 80301

Phone: (303) 441-3637

Name of person performing physical inspection of ambulances:

Name: Dave Booton Title: Emergency Services Coordinator

Address: 1777 6th Street Boulder, CO 80302

Phone: (303)-441-3625

1.3 Inspection and Licensing- Process

Please place a check mark in the blank that most accurately applies to your county.

1. How often do you license ambulance services? Annually Semi-Annually
2. How often do you physically inspect your ambulances? Agency or Government Entity:
Annually Semi-Annually
3. Are the policies and procedures for licenser of ambulances included in your county resolution?

Yes No

4. In your inspection of ambulances, do you verify that the vehicle equipment conforms to the minimum essential equipment list contained within the Colorado Board of Health Rules 6-CCR-1015-3? Yes No

If not please explain:

5. **Please attach Copies of the Form(s) you use to License and inspect your ambulances.**

6. Do all of the licensed ambulance services based within your county comply with the statewide data collection program through the Colorado Emergency Medical Services and Prevention Division? Currently state data collection requires a completed agency profile be returned annually to the EMSP Division. Note: If they do not comply, your county will not be eligible for funding. Have you assured that all of these forms are attached and are complete and correct? Yes No

1.4 Ambulance Agencies - licensed and inspected

Please complete the following information for all **transport** agencies based in your county.

Agency Name	Director	Email	Phone/Fax	Address
Boulder County Paramedics	Lang Smith	bouldercountyparamedics1@aol.com	(303) 665-8900 (303) 665-1269	1331 South St. Louisville, CO 80027
Lyons Fire Protection District	Kris Keith	bdeen@co.boulder.co.us	(303) 823-6611 (303) 823-5568	P.O. Box 695 (251 Broadway) Lyons, CO 80540
Mountain View Fire Protection District	Valerie Parker	vparker@mountainviewfire.org	(303) 772-0710 (303) 651-7702	9119 E. County Line Rd. Longmont, CO 80352
Nederland Fire Protection District	Rick Dirr	rickdirr@nfpd.org	(303) 258-9161 (303) 258-9161	P.O. Box 155 (170 E. 3 rd ST) Nederland, CO 80466
Pridemark Paramedic Services	John Sliz	jhnsz@aol.com	(303) 939-8111 (303) 939-8936	3297 Walnut Street Boulder, CO 80301

1.5 Please complete the following information for all agencies based in your county who provide **non-transport** Emergency Medical Services (i.e., search & rescue, fire, police, quick response teams, etc.).

Agency	EMS Contact	Address	Phone	E-mail
Allenspark FPD	Erle Collom	P.O. Box 4664 Estes Park, CO 80517	303-747-2586	Erlebob@aol.com
Berthoud FD		275 Mountain Avenue Berthoud, CO 80513	303-532-2264	
Big Elk Meadows FPD	Diane Briggie	90 Balsam Lyons, CO 80540	303-823-5070	
Boulder City Open Space	Jean Koszalka	66 S. Cherryvale Rd Boulder, CO 80303	303-413-7622 303-441-3131	koszalka@ci.boulder.co.us
Boulder City Wildland Crew	Mark Mullenix	6003 N. 51 st Street Boulder, CO 80301	303-530-2294	
Boulder County Coroner	John Meyer MD.	1777 6 th Street Boulder, CO 80302	303-441-3535 fx:303-441-4535	tjfcn@co.boulder.co.us
Boulder County HazMat Team	Larry Stern	1805 33 rd Street Boulder, CO 80301	303-441-3637 fx: 303-441-3884	LLSSH@co.boulder.co.us
Boulder County Sheriff's Department	George Epp	1777 6 th Street Boulder, CO 80302	303-441-4605	
Boulder County Wildland Crew	Dave Booton	1777 6 th Street Boulder, CO 80302	303-441-3625	
Boulder Emergency Squad	John Pavlik	P.O. Box 18887 Boulder, CO 80306	303-415-9108 303-443-4081	pavmania46@aol.com
Boulder Fire Department	Mike Chard	1805 33 rd Street Boulder, CO 80301	303-441-3648 fx: 303-448-1129	Chardm@ci.boulder.co.us
Boulder Mountain Fire Authority	Marcia McHaffie	4576 Lee Hill Boulder, CO 80320	303-444-4001	mmchaffie@encision.com
Boulder Mountain Parks	Jeanne Scholl	900 Baseline Boulder, CO 80301	303-441-3408 fx:303-441-4408	Claussenme@ci.boulder.co.us
Boulder Police Department	Mark Beckner	1805 33 rd Street Boulder, CO 80301	303-441-3300 fx: 441-4465	
Boulder Rural FPD	Sarah Scales	5075 Jay Road Boulder, CO 80303	303-530-9575 fx:303-530-9065	Info@brfd.boulder.co.us
Broomfield Police Department	Tom Deland	1 Descondes Drive Broomfield, CO 80020	303-438-2331	
Cherryvale FPD	Dan Durkee	7700 Baseline Road Boulder, CO 80303	303-494-3735 fx:49908973	ddurkee@cherryvale.org
Coal Creek FPD	Eric Cross	P.O. Box 7187 Golden, CO 80403	303-642-3121 fx: 303-642-1652	Cccfpd@aol.com
Colorado State Forest Service	Allen Owen	5625 Ute Hwy. Longmont, CO 80503	303-823-5774	
Colorado State Patrol	Bob Mitchell	Broomfield 80020		
Eldorado Canyon State Park	Steve Muehlhauser	P.O. Box B Eldorado Springs, CO 80025	303-494-3943 fx:303-499-2729	Steven.muehlhauser@state.co
Eldorado Springs / Marshall FPD	Eric Hill	P.O. Box 3104 Eldorado Springs, CO 80025	303-499-7161	docffemt@aol.com
Erie Police Department	Lt. David Brown	Town Hall Erie, CO 80516	303-926-2800 fx:303-826-2805	debrewer@ci.erie.co.us

Fourmile FPD	David Hustvedt	967 Poorman Road Boulder, CO 80302	303-442-2814 fx:303-443-7659	davidHustvedt@hotmail.com
Front Range Rescue Dogs	Jim Smith	P.O. Box 18181 Boulder, CO 80308	303-441-4985	
Gold Hill FPD	Leslie Finn	960 Pine Gold Hill, CO 80302	303-444-5549	cfinn@mho.net
High Country FPD	Vivian Long	448 Pine Street Rollinsville, CO 80474	303-258-3727	vrlong@idcomm.com
Hygiene FPD	Marlin Goofrey	13858 North 75 th Street Longmont, CO 80533	303-588-9455	
Indian Peaks FPD	Vanessa Hanson	P.O. Box 290 Ward, CO 80481	303-459-0580	coregold@earthlink.net
Jamestown FPD	Colleen Williams	P.O. Box 298 Jamestown, CO 80455	303-447-1568	
Lafayette Police Department	Gerry Morrell	1290 S. Public Road Lafayette, CO 80026	303-665-5571 303-665-9661	
Lefthand FPD	Claudia Bunch	P.O. Box 130 Jamestown, CO 80455	303-459-0708 fx; 303-444-6063	Claud1@mindspring.net
Longmont Emergency Unit	Kevin Elmarr	P.O. Box 1744 Longmont, CO 80502	303-776-6180	Medicone@neimage.com
Longmont Fire Department	Hank Mccarthy	225 Kimbark Street Longmont, CO 80501	303-774-4690	hank.mccarthy@ci.longmont.co.us
Longmont Police Department	Mike Butler	3 rd & Kimbark Longmont, CO 80501	303-651-8555	
Louisville FPD	Cris Brewer	895 West via Appia Louisville, CO 80027	303-666-6595 fx:666-7659	Cbrewer@us.IBM.com
Louisville Police Department	Patrick Doran	749 Main Street Louisville, CO 80027	303-666-6565 fx:303-666-8476	Pager: 2763
Mountain View FPD	Phil Beehler	9119 County Line Road Longmont, CO 80501	303-666-4404	
Nederland FPD	Rick Dirr	P.O. Box 155 Nederland, CO 80466	303-258-9161 fx:303-258-9161	rickdirr@nfpd.org
Office of Emergency Management	Larry Stern	1805 33 rd Street Boulder, CO 80301	303-441-3637	
Pinewood Springs FPD	Richard Wilcox	61 Kiowa Pass Lyons, CO 80540	303-823-5086	
Pridemark Paramedic Services	John Sliz	3297 Walnut Boulder, CO 80301	303-939-8111 fx:303-939-8936	Jnslz@aol.com
Rocky Mountain Rescue Group	Terry Olson	P.O. Box 190 Ward, CO 80481	303-459-0473	tolson1925@aol.com
Sugar Loaf FPD	Sally Stoffel	1360 Sugarloaf Rd. Boulder, CO 80302	303-442-1050	sally@stoffelfamily.org
Sunshine FPD	Henry Ballard	170 Misty Vale Boulder, CO 80302	303-786-7731	hballard@anaya.com
University of Colorado Police Dept	Jim Fadenrech	CU Campus Box 502 Boulder, CO 80309	303-492-6666	
U.S. Forest Service	Bill Anthony	2995 Baseline Rd #110 Boulder, CO 80303	303-444-6600	
Ward Marshall	Norm Bower	Town Hall P.O. Box 149 Ward, CO 80481	303-459-3452 303-441-4444	

Introduction

County Plan Section of the Report

The law enabling the County Subsidy Program requires that all plans submitted include a description of the existing system, deficiencies or improvements, and goals and objectives. You will see that the outline we are providing for submission of your plan emphasizes this. Do not reference page and paragraph numbers from a previous plan and complete all categories.

This plan outline is available to download from the EMS website at:

http://www.state.co.us/gov_dir/cdphe_dir/em/emhom.html.

If you have questions pertaining to the application please contact one of the following HPDPD Prehospital Care Program staff members:

Laurie Borgers	Grants Manager	(303)692-2987 Laurie.Borgers@state.co.us
Michael Armacost	Program Director	(303)692-2982 Michael.Armacost@state.co.us
Martin Stelmack	Technical Assistance	(303)692-2988 Martin.Stelmack@state.co.us
Kevin Meeks	Communications	(303)692-2986 Kevin.Meek@state.co.us
Deb Polk	Program Support	(303)692-2583 Deb.Polk@state.co.us

Section II

Subsidy Plan

ACCOMPLISHMENTS

In the table below please list any completed goals or accomplishments in the area of EMS in your county.

<i>Goal & Objective #</i>	<i>Type of Goal</i>	<i>Description of Accomplishment(s)</i>
00-2.1.C-G#2	Communications	Seven additional frequencies are being requested by the Communication Center.
00-2.1.C-G#3	Communications	Primary FD dispatch (Red-1) was upgraded to a repeated channel.
00-2.1.C-G#3.b	Communications	Sectoring plan is in development for RED-1, to provide better coverage for problem areas.
00-2.1.C-G#4	Communications	Boulder County Commissioners have funded upgrades to microwave links at communications center sites.
00-2.1.C-G#4	Communications	Numerous agencies have upgraded packsets and pagers.
00-2.2.C-G#1	Transportation	A new Boulder County Mountain Address map has been produced by the Sheriff's Department and an initial printing has been distributed to agencies.
00-2.2.C-G#2	Transportation	Surveys information used to request state EMS grant funding.
00-2.2.C-G#3	Transportation	Several agencies have improved address signage in their districts.
00-2.3.C-G#2a	Treatment	New Boulder County EMS Protocols have been developed, with rollout in late 2000.
00-2.3.C-G#3b	Treatment	CE schedules from various providers are routinely posted on Boulder County Sheriff's Dept. Emergency Services website.
00-2.3.C-G#3c 00-2.3.C-G#4a,b 00-2.3.C-G	Treatment	A new physical advisor has been contracted with for the majority of Boulder County EMS agencies. A monthly meeting is held with the advisor regarding CEU, chart QA/QI, protocols, etc... greatly improving communications and progress in these areas.
00-2.3.C-G#7C	Treatment	Access to metro area EMS training is available via COEMS website, info for COEMS has been provided to BCFFA EMS committee.
00-2.4.C-G#1a	Documentation	Transport agencies have been educated to the requirement to submit PCRs to hospitals within one week.
00-2.4.C-G#1b,G#2	Documentation	Interim PCR QI/QA guidelines for many of Boulder County non-transport agencies have been developed which addresses timeliness of PCR submission.
00-2.4.C-G#3a	Documentation	A sub-committee of BCFFA EMS is working with physician advisor to standardize QI/QA system.
00-2.5.C-G#1c	Rescuer Safety	Several agencies have funded TB screening for their departments.
00-2.5.C-G#2a	Rescuer Safety	Many agencies provided Hepatitis-B vaccinations for responders.
00-2.5.C-G#5	Rescuer Safety	Several agencies used subsidy money to purchase needed BSI equipment.

COMMUNICATIONS

2.1.A EXISTING SYSTEM DESCRIPTION

Please describe your current communications system and include the following:

- 1) Functional description of paging, dispatch, on scene and medical control, ambulance to ambulance, ambulance to hospital, alternate communications, communications to air transport and other agencies, etc.*
- 2) System functional diagrams identify location of dispatch, base stations, control stations, repeaters, telephone lines, and include frequencies, etc. Include as much detail as possible.*

Boulder County emergency services operate out of five dispatch centers: Boulder Regional Communications Center (BRCC), Longmont Communications Center, University of Colorado Communications Center, Broomfield Police, and Adams County Communications. Boulder Regional Communications Center dispatches all Fire / Rescue and EMS calls in Boulder County, excluding those in the cities of Longmont, Broomfield, and areas in Boulder County which are covered by North Metro Fire Protection District. The Boulder Regional Communications Center also dispatches law enforcement services for all of Boulder County, except the University of Colorado, City of Broomfield, and City of Longmont.

The City of Boulder, City of Longmont, and University of Colorado communications centers are linked by the same computer aided dispatch (CAD) and E-911 systems.

Functional description of paging, dispatch

Emergency medical services are dispatched via a radio and paging network system. The system incorporates the use of portable or stationed radios, pagers, and tone alert monitors. The Boulder Regional Communications Center (BRCC), Longmont Communications Center, CU Communications, and Broomfield Police Communications are all equipped with Enhanced 911 systems (E-911). When an emergency call is received, E-911 basic information (name, address, and phone number) is automatically displayed on the CAD console. The call taker then identifies the nature of the call and uses the displayed information or changes it as necessary. The CAD system automatically routes the call information to the appropriate dispatcher to dispatch and relay information to field units via radio. Currently, BRCC dispatches all EMS related calls through one dispatch position and channel.

Once the call district has been determined, fire and rescue personnel are notified via a tone alert and/or alpha numeric pager system. The dispatcher is responsible for tracking of the status of the agencies and equipment responding and assisting with requests from the field; such as mutual aid or additional medical personnel or equipment. Agencies use various types of portable, mobile and base station radios to communicate with the dispatch centers and for coordinating incidents.

During 1999 a countywide numbering system was implemented to enhance communications during busy periods on the primary dispatching channel or on large-scale incidents. The numbering system utilizes four digits with the first two numbers identifying the department and the third and fourth numbers identifying the type of apparatus or resource.

Communications for on scene, medical control, ambulance to ambulance, ambulance to hospital, and alternate communications:

Agencies have access to medical control through the County EMS radio frequency, which is a simplex non-recorded radio channel, or by direct land (phone) lines, the Telephone Patch Access (TPA) system or by using cellular phones. Due to the terrain and therefore variable radio and/or cellular transmissions, communications centers can act as a relay for agencies to medical control. The County protocols have provisions for situations such as this. In addition, the EMS frequencies utilize a continuous tone coded sub-audible squelch, which allows different agencies to use the same frequency within an area without interference. Pridemark, Boulder County Paramedics, American Medical Response, Boulder Community Hospital, Longmont United Hospital and Avista Hospital all have private line frequencies to allow access of responders to their base physicians. Recently Boulder FD is working with communications to incorporate Mobile Data Screens or similar in their initial response fire apparatus.

Communications to air transport and other agencies:

GPS units are currently being used by field agencies to report locations for helicopter landings and any other incidents within their districts. Typically agencies use a frequency designated as FERN 1 for air transport communications on scene. Boulder County seems to be utilizing mutual aid agreements more than ever before. Communication effectiveness during a mutual aid incident is determined by equipment compatibility and radio channel access. All agencies have the ability to communicate with agencies that are commonly utilized. Some departments have specific private channels that are used for emergencies on a regular basis, but may not be part of the programmed channels used by all agencies in the county.

System functional diagrams identifying dispatch, base stations, control stations, repeaters, telephone lines, frequencies, etc.

The Emergency Medical Services in Boulder County use EMS 1 for unit to unit or unit to base communications or for online physician control/hospital notification. The Boulder Regional Communications center dispatches all ambulance/ emergency calls over the RED 1 channel. The ambulances receive updates of the incident or other pertinent information over the RED 1 channel. The EMS providers also give their acknowledgement, i.e., responding, arrival, clearing, ambulance hospital destination, in and out of service over the RED 1 channel. Most of Boulder County field agencies have access to the EMS channel to coordinate with the responding ambulances. Pridemark Paramedic Services utilize their own channel for unit to unit and unit to Pridemark dispatch communications.

RADIO CHANNELS

CHANNEL	FREQUENCY	PRIMARY USEAGE
GREEN-C	Tx 155.145 Rx 155.865	Boulder County law enforcement channel. Gunbarrel repeater.
GREEN-N	Tx 158.850 Rx 155.865	North – Mead repeater
GREEN-S	Tx 159.270 Rx 155.865	South Tower – Thorodin repeater
BLUE	Tx 155.625 Rx 155.625	City of Boulder law enforcement channel.
BRONZE	Tx 155.490 Rx 155.490	Operations channel for all agencies. Can also be used for special events/operations
VIOLET	Tx 155.520 Rx 155.520	Data channel. Used for clearances, queries, file numbers, tow requests, court dates and other extraneous requests.
GREY	Tx 158.775 Rx 158.775	Paging channel.
SILVER	Tx 155.025 Rx 155.025	CUPD'S main law channel.
CLEER	Tx 151.340 Rx 151.340	Colorado Law Enforcement Emergency Channel.
YELLOW	Tx 154.950 Rx 155.655	Operations channel for all agencies. Units can reach their respective records divisions or the jail on this channel.

RED 1 REPEATER	Tx 151.355 Rx 154.325	Used as a repeater channel for dispatching.
RED 2	Tx 154.205 Rx 154.205	Operations channel for Boulder fire. Can be used as primary dispatch channel in the event of a major incident.
RED 3	Tx 154.415 Rx 154.415	Operations channel for all other BC fire agencies.
GOLD	Tx 155.190 Rx 155.190	Operations channel for CUPD and other university agencies.
LONGMONT	Tx 154.175 Rx 154.175	Operations channel for the City of Longmont
USFS	Tx 168.050 Rx 168.050	U.S. Forest Service channel
CSFS	Tx 151.340 Rx 151.340	Colorado State Forest Service channel
NLEC	Tx 155.475 Rx 155.475	National law enforcement channel. Same functions as CLEER channel. DOW can also be reached on NLEC.
FERN 1	Tx 154.280 Rx 154.280	Fire emergency radio, inter-agency coordination channel for fire agencies. Also used for chopper landings and car to car communication in multi agency incidents.
WHITE	Tx 154.980 Rx 154.980	Used by humane society, city parks, open space and mountain parks units.
ORANGE	Tx 153.860 Rx 153.860	Used by Boulder City public works, used for sand requests, snow plows, street sweepers.
BROWN	Tx 156.180 Rx 156.180	Used by Boulder County public works, same function as orange channel. Boulder County parks units can also be raised on BROWN.
Pridemark	TX 153.605 Rx 160.005	Used by Pridemark Paramedics
EMS	Tx 155.280 Rx 155.280	Used by Emergency Medical Services

Communications has also recently implemented an emergency phone network to allow dial back of county residents should mass evacuations or other emergencies require public notification.

The following are the locations of the Boulder County Microwave System:

Administration Operations Staff Services:
1777 6th Street, Boulder, CO 80302

Jail Division :
3200 Airport Road, Boulder, CO 80301

Communications Emergency Management:
1805 33rd Street, Boulder, CO 80301

The following are the locations of the Transmit and Receive sites throughout the Boulder County system.

- Boulder Regional Communications Center, Dispatch:
1805 33rd Street, Boulder
Transmit and Receive All Channels
- Gunbarrel: Main Transmitter Site
- Louisville: Receive Site
- Mead: Transmit and Receive Site
- Mount Thorodin: Receive and Transmit Site
- Nederland School: Receive Site
- Upper Boulder Falls: Receive Site
- Allens Park Fire Dept.: Receive Site
- Longmont: Receive Site
- Lyons Fire Dept.: Receive Site
- Criminal Justice Center
1777 6th Street Boulder
Transmit and Receive Site and Control Stations
- Chautauqua: Receive Site

2.1.B IDENTIFY AREAS NEEDING IMPROVEMENT

Identify the changes or improvements you plan to make within your current communications system.

Red 1 channel, the primary fire & EMS dispatch channel continues to be plagued with dead spots within the county. This channel is now repeated, which has helped partially with the dead spots and has helped reduce agencies at one end of the county transmitting over agencies transmitting at the other end (walking over each other). However it is still common for multiple units to be attempting to communicate at once. This is possibly due to the lack of upgrading existing radios with the RED1 repeater frequencies, as well as radio discipline. With increasing usage it may become critical to limit unnecessary traffic on this channel.

Currently only one primary tactical channel is available for use by a majority of fire agencies within Boulder county. When multiple calls occur RED 3 is inundated with traffic from multiple incidents, frequently it is unclear which incident or agency is trying to call someone else resulting in missed communications and endangerment to rescuer safety. Additional tactical channels and protocols for usage will need to be defined.

Many agencies utilize digital pagers as a primary means of call notification. Although digital messages are sent from both the Lee Hill and Gunbarrel transmitters garbled or missed pages are common in the mountainous areas. Addition transmitter site(s) would facilitate improved paging of emergency responders.

2.1.C GOALS AND OBJECTIVES

In the space provided below please state your goals and objectives.

COMMUNICATIONS GOAL # 1

Eliminate critical communications "dead spots" within the system

Objective A for Goal # 1 -

Complete acquisition of addition frequencies, implement sectoring of RED1 to improve communications in outlying areas similar to successful GREEN channel sectoring.

Progress: The communications center has recently reconfigured the law enforcement dispatch channel (GREEN) into North, Central and South channels this has greatly increased coverage and clarity within the county, this is currently proposed as a model for improving RED 1 communications.

Objective B for Goal # 1 -

Following sectoring, ensure agencies update radio configurations with new frequencies.

COMMUNICATIONS GOAL # 2

Increase available number of tactical channels within the system

During times of multiple incidents RED 3 is incapable of handling the volume of radio traffic necessary to successfully manage multiple events.

Objective A for Goal # 2 -

Complete acquisition of addition frequencies, determine number of frequencies to be allocated for tactical usage.

Objective B for Goal # 2 -

Update Boulder County communications plan with new tactical channels and procedures determining usage.

Objective C for Goal # 2 -

Ensure agencies update radio configurations with new frequencies.

COMMUNICATIONS GOAL # 3

Upgrade portable, mobile, and base station radios to support addition channels.

Many of the radios used by responders have limited channel capacity, therefore it will be necessary to replace these older radios to take advantage of additional tactical and dispatch channels.

Objective A for Goal # 3 -

Assist agencies in obtaining funding via state EMS grant to upgrade or purchase additional radios.

COMMUNICATIONS GOAL # 4

Upgrade pagers and paging system for response agencies.

Many agencies continue to struggle with receiving emergency call notification dependably, due to poor transmitter coverage, older pagers or inadequate numbers of pagers.

Objective A for Goal # 4 -

Assist agencies in obtaining funding via state EMS grant to upgrade paging system and purchase of additional pagers or paging packsets.

Transportation

2.2.A **EXISTING SYSTEM DESCRIPTION**

Describe your current transportation system and include the following:

- 1) Number of ambulance agencies, quick response units, search and rescue, and fire agencies within your county
- 2) Number of licensed ambulances should be provided in Attachment A, Transport Agency Profile
- 3) Coverage
- 4) Mutual Aid Agreements in place
- 5) Coordination of resources

The number of ambulance agencies: 6

1. Boulder County Paramedics
2. Coal Creek Fire Protection District
3. Lyons Fire Protection District
4. Nederland Fire Protection District
5. Mountain View Fire Protection District
6. Pridemark Paramedic Services

The number of quick response units: 8+

1. The Sheriff's Department maintains one Incident Command Vehicle (ICV) for countywide use during any type of emergency situation. The ICV has extra radios, marker boards, meeting room, communication post, fax, copier, and four cellular phones. Number of units: 1
2. The Boulder Regional Communications Center maintains a mobile communications van. The van can be brought on site with communications personnel to isolate communications for the incident. The advantage is that the communications personnel on scene are not handling the remaining county communication obligations during an incident. Number of units: 1
3. Boulder County Hazmat Team responds to all hazardous material incidents within Boulder County and also is tied into a three county mutual aid agreement with Larimer and Weld County. The hazmat team maintains two vehicles, one in Longmont and the other in Boulder. The Longmont unit is the primary response vehicle for hazardous materials incidents. The Boulder unit is a specialized decontamination unit and also carries limited hazmat equipment. Number of units: 2

4. City of Boulder Fire Department, Boulder Emergency Squad, Longmont Emergency Unit and Sugar Loaf Fire Protection District and Nederland Fire Protection District each operate a medium duty rescue truck. The apparatus are available as a countywide resource for scene lighting, SCBA re-fill, firefighter rehab, medical (MCI) supplies/equipment, and extrication. The Boulder fire Department squad primarily runs on medical calls but in addition can provide confined space, MCI equipment and high/low angle response. Number of Units: 5
5. The cities of Louisville and Longmont each have heavy rescue trucks. Longmont's heavy rescue truck is part of the statewide urban search and rescue (USAR) team. The Longmont team also responds to specialized rescue calls within the Boulder County area. Specifically it provides personnel and equipment to handle confined space, trench rescue, high and low angle rescue, and specialized extrication equipment for response to unique rescue situations. Number of units: 2
6. Additional quick response units throughout the County include Eldorado Canyon State Park, Boulder City Open Space, Boulder Mountain Parks, Indian Peaks and Boulder Rural Fire Protection Districts. The maintaining agencies use four wheel drive ranger vehicles or light-duty emergency vehicles with medical and minimal rescue equipment. These units respond to a wide variety of calls that include medical, fire, search and rescue. Number of units: Undetermined at this time

The number of search and rescue groups: 6

Boulder County has contracts and response agreements with two search and rescue units, Rocky Mountain Rescue Group (RMR) and Front Range Rescue Dogs. Boulder County Open Space, City of Boulder Open Space, and City of Boulder Mountain Parks also performs search and rescue operations.

Agreements with two additional specialized rescue agencies, Longmont Emergency Unit (LEU) and Boulder Emergency Squad (BES) provide extrication, water rescue, confined space rescue, and urban rope rescue capabilities within the county. The City of Boulder also operates a dive team that specializes in not only in dive rescue, but also swift water rescue, medical diver, and instruction.

Boulder County Sheriff's Department also now has a "Mounted Search and Rescue Unit".

The number of fire agencies: 26

Twenty six fire agencies are dispatched via enhanced 911 (emergent and non-emergent incidents) relating to fire, search and rescue, citizen assist, motor vehicle accidents, medical/trauma calls, wildland fire, and hazmat. Four additional agencies respond along with the above twenty six agencies to incidents, dependent upon location and type of call. These include Colorado State Forest Service, U.S. Forest Service, Boulder County Wildland Fire Crew, and the City of Boulder's Wildfire Crew.

See Attachment A, Section II: Transport Agency Profile for details:

2. Number of transport vehicles and their condition:

- Boulder County Paramedics operates 3 Type 3 ambulances in good condition.
- Coal Creek Fire Protection District operates one Type-2 ambulance in good condition.
- Lyons Fire Protection District operates 2 BLS ambulances in excellent condition.
- Mountain View Fire Protection District operates 2 ALS units, one medical attack vehicle(MAV) and one Type-3 ambulance.
- Nederland Fire Protection District operates 2 ALS / BLS 4 wheel drive ambulances in excellent to good condition.
- Pridemark Paramedic Services operates 10 ALS ambulances, 2 of which are four wheel drive. All are in excellent condition. In addition Pridemark operates 1 quick response vehicle (QRV).

3. Coverage:

Pridemark Paramedic Services utilizes a posting system with two ambulances in Longmont and three in Boulder during minimum staffing periods. Additional ambulances are added and during peak periods there can be as many as eight ambulances in the system along with one quick response vehicle. Each ambulance shift is 12 hours long and coverage of the county is twenty-four hours a day seven days a week. Pridemark is required by the county to provide mutual aid to all areas that are providing transport services in the county. Response times are based on performance and are required by contract to be reviewed every quarter. Pridemark currently provides initial service to all areas of the county, excluding the City of Broomfield, the City of Lafayette, and the city of Louisville.

- Boulder County Paramedics provides 24 hour advanced life support coverage to the City of Lafayette and Louisville.
- Coal Creek Fire Protection District operates within the Coal Creek Canyon area as a BLS ambulance and an ALS transport contract with Pridemark Paramedics. 24-hour coverage is administered through volunteer personnel at the agency.
- Lyons Fire Protection District ambulances are used as first response vehicles and to relay patients to Pridemark primarily in the St. Vrain drainage area during mass casualty incidents and when long transport times are anticipated due to location within the district and weather conditions. 24-hour coverage is BLS and administered through volunteer personnel at the agency.
- Rocky Mountain Rescue (RMR) and Front Range Rescue Dogs provide countywide search and rescue services.

- Mountain View Fire Protection district operates within their district. Their two ambulances are staffed 24 x7 with ALS response. One of these ambulances is a Medical Attack Vehicle (MAV) which has initial attack fire suppression capabilities, this unit is stationed in Niwot and covers the southwest side of the district. The other ambulance is stationed on the east side of the district. Mountain View's district is 225 sq. miles, including the towns of Mead, Del Camino, Erie, Brownsville, Niwot and rural Longmont and includes parts of both Boulder and Weld county.
- Nederland Fire Protection District operates within their district as well as EMS calls to Eldora Mountain Ski Resort area. The ambulance is BLS or ALS dependent upon volunteer staffing. The ambulance is a first response vehicle and also acts as a relay to Pridemark Paramedics in Boulder Canyon during mass casualty incidents and when long transport times are anticipated due to location within the district and weather conditions. 24-hour coverage is administered through volunteer personnel at the agency.
- Longmont Emergency Unit and Boulder Emergency Squad provide specialized rescue services to various regions of the county. Each is dispatched on a regional basis--Longmont Emergency Unit responds to the northern section of the county, while Boulder Emergency Squad responds to the southern section. Both agencies use each other for mutual aid.
- The Sheriff's Department Incident Command Vehicle, Boulder County Hazmat Team, Boulder Emergency Squad rescues, Sugar Loaf FPD Rescue 2, City of Boulder Squad, City of Longmont Rescue, Lafayette Rescue and Longmont Emergency Unit Rescues are countywide resources for quick response units.
- Quick response units also respond to incidents within State and U.S. Forest Service areas, open space and park recreational areas throughout the County. In addition to fire department initial response, Eldorado Canyon State Park, Boulder City Open Space, Boulder Mountain Parks, City of Boulder Wildfire Crew, Boulder County Wildfire Crew, Colorado State Forest Service and U.S. Forest Service also provide response to emergency calls.
- All Boulder County incidents are dispatched to receive a BLS initial response and an ALS ambulance for further treatment and transport.
- All Boulder County agencies utilize air ambulances based on protocols set forth in the Boulder County EMS protocol manual as approved by the physician advisors.

4. Mutual Aid Agreements

- Pridemark has mutual aid agreements with transport agencies in and surrounding Boulder County as well as access to ambulances within 45 minutes of Denver.
- Many fire departments and agencies have signed mutual aid agreements.
- Mountain View FPD has mutual aid agreements with all surrounding agencies including Tri-Area, Fredrick, Brighton, Thornton, Longmont, Pridemark and Boulder Rural.

5. Coordination of Resources

- The majority of Boulder County operates with tiered response system. Initial BLS response, ALS Response, Law enforcement and Boulder Regional Communications or Longmont Communications simultaneously dispatches specialized equipment.
- All agencies provide initial size-up, search and rescue, triage, and treatment of patients.
- All agencies are coordinated through an Incident Command System. The incident management system adopted by the county is the National Incident Management System (NIMS).

2.2.B IDENTIFY AREAS NEEDING IMPROVEMENT

Identify the changes or improvements you plan to make in your current EMS transportation system.

- Develop system and funding to maintain accuracy of newly revised Boulder County maps.
- Improve posting of address numbers within county to facilitate responder's ability to locate proper address.
- Improve equipment and apparatus used by transport agencies, fire districts and other initial responders who provide EMS within the county.

2.2.C GOALS AND OBJECTIVES

In the space provided below please state your goals and objectives.

TRANSPORTATION GOAL# 1

The Boulder County Sheriff's Department has recently completed an enormous effort to update the Mountain Addressing Guide last published in 1986. Due to continued growth within the county these maps will be outdated or fail to contain new addresses or streets in a very short time. Procedures and funding will need to be developed to ensure maintenance of this critical resource.

Objective A for Goal # 1

Develop procedures between Boulder County Land Use, mapping and Sheriff's Department to ensure maps are maintained, updated and distributed to emergency response agencies throughout the county.

Objective B for Goal # 1

Provide opportunity to acquire State EMS grant funding to assist in maintaining county maps.

TRANSPORTATION GOAL # 2

Posting of addresses especially within the mountainous areas of Boulder County remains sporadic. Although address signs are available free from the county, few avail themselves of this service. A public education campaign funded via grant money may be a strategy to improve compliance with address posting.

Objective A for Goal # 2

Provide opportunity for funding of address posting campaign via State EMS grant.

TRANSPORTATION GOAL # 3

Improve availability of EMS equipment and response apparatus to agencies providing initial response EMS care. Many agencies within Boulder County, especially those in outlying areas wish to upgrade their EMS response capabilities with quick response vehicles or light rescues and improved equipment so that patients can be initially treated pending arrival of transport units. Other agencies have chosen to provide transport capabilities within their districts due to call volumes, patient care issues and desire to better serve their patients. Although this expansion of scope or level of services will clearly benefit patients, the cost of this additional equipment and apparatus is initially prohibitive for many agencies.

Objective A for Goal # 3

Provide opportunity for agencies to acquire grant funding for EMS equipment and apparatus.

Reproduce this page if additional space is necessary.

Treatment

2.3.A EXISTING SYSTEM DESCRIPTION

Describe your current system and include the following:

- 1) Treatment protocols
- 2) Destination policies
- 3) Medical control
- 4) Quality assurance
- 5) Manpower
- 6) Training
- 7) Mass casualty
- 8) Trauma specific policies, protocols and procedures

Treatment within the county is provided by various response system concepts. The different types of response systems utilized in Boulder County are; (1) Fire department ALS response with ALS ambulance and law enforcement- three tiered system. (2) BLS fire department response with ALS ambulance- two tiered response system. The three levels of patient care are initial responders, transporting agency, and clinical care.

City and County law enforcement agencies are often the first to arrive on scene and provide BLS treatment until the fire department or ambulance arrives. Law enforcement officers receive annual basic first aid training and CPR certification to facilitate on scene basic life support. Fire department service levels vary from First Responder to Paramedic level and operate within Boulder County Protocols. Several agencies within the county also carry AED's on first response vehicles.

Pre-hospital treatment in Boulder County is under the control of three full service hospitals, consistent with Trauma Level III capabilities, which include: Avista Hospital, located in Louisville, Colorado; Boulder Community Hospital, located in Boulder, Colorado; and Longmont United Hospital located in Longmont, Colorado. All three hospitals use common protocols for affiliated agencies relating to pre-hospital treatment. All three hospitals, Boulder County Paramedics, Pridemark Paramedic Service and some fire agencies assist and organize aspects of education and program planning, QA audits, and individual agency training under the supervision of the Boulder County Physician Advisor Council (BCPAC).

1. Treatment Protocols

Boulder County operates on a written protocol system, developed by the Boulder County Physician Advisor Council whose membership includes board certified emergency physicians, and is the standard for medical treatment throughout the County. These protocols were last update in late 2000, with full implementation scheduled for January 1, 2002. Pridemark Paramedics and Boulder County Paramedics operate under agency specific protocols. The recent revisions to Boulder County Protocols have included procedures common to Denver and other areas, with specific exceptions related to longer transport times.

Protocols address the specific guidelines and rules for treatment administered by First Responders, EMT - B, EMT - IV/MAST, EMT - I, EMT - P, and AED providers. Protocols are in the format of a manual, which provides easy access to Acts Allowed for all levels of providers. The manual provides written procedures for medical and trauma incidents, including subjective and objective assessment data, indicated treatments, precautions, documentation specifics, and destination variations. Treatment and procedures are defined as "standing" or "direct" orders by provider level. Treatment protocols are reviewed quarterly and disseminated through the Boulder County Firefighter's Association, EMS Committee.

2. Destination Policies

Destination is an objective determination based on patient preference, severity of illness or injury and location of the incident related to hospital location. In most cases, the destination is the agency's closest full service hospital. Destinations for unusual circumstance such as burns, carbon monoxide poisoning, multi-systems trauma, etc. are defined in the protocol system. Hospital base contact is also available for consultation and direction.

3. Medical Control:

Medical control within Boulder County is provided via the BCPAC through standardized protocols. The physician advisors meet on a quarterly basis to review and address common concerns, consider protocol revisions, determine continuing educational requirements, and to assure that the highest level of quality assurance and standard of care are being met throughout the County. All county hospitals offer 24-hour emergency departments where an on-duty emergency physician is accessible using radio communications, land lines or cellular phones for consultation and direct order treatments.

4. Quality Assurance

Quality assurance and control as well as identifying areas of improvement are determined by each agency, EMS Coordinators at two County hospitals, and by the Physician Advisors. EMS Coordinators have been designated by the BCPAC to review all patient reports to assure standard of care and adherence to protocols. Evaluation of these patient reports includes, but is not limited to, scene and transport times, procedures/treatment vs. injuries, destinations, response of receiving facilities, patient outcome, feed-back to agencies, etc.

For each agency, an EMS officer is responsible for developing continuing education plans that may

be unique to their district, given geographical and injury patterns. Within these boundaries, QA for patient care is monitored through chart review, direct observation, skill assessment and training.

5. Staffing

ALS transport agency staffing provides 130 EMT-B, 4 EMT-I, and 81 EMT-P personnel located throughout the county. Of these personnel, 40 are BTLs trained, 33 are PHTLS trained, 85 are PALS trained, and 96 are ACLS trained.

There are an estimated 600 EMT's providing EMS within initial response agencies. Approximately 130 agency personnel are trained to the first responder level. In addition, several initial response agencies have personnel certified as PALS, ACLS, BTLs, RN and MD.

Staffing is generally stable in most agencies. Automatic mutual aid dispatch provides additional coverage for areas and call types identified in the CAD system.

6. Training

Educational opportunities are provided for all levels of certification by a variety of Boulder County resources. The EMS Education Coordinators from each organization meet on an unscheduled basis to identify needs, reduce redundancy, improve cost efficiency, and standardize education. Initial EMT training is provided by two of the three county hospitals, one of which has entered into a joint agreement with Front range Community College to offer it's EMT-B training program. Hospital classes are offered on a preferential basis, to individuals affiliated with a Boulder County EMS agency for course placement and reduced pricing of educational programs. EMS Coordinators, agency departments and transport agencies also provide monthly continuing education, as well as chart and incident review. The area hospitals, American Red Cross and American Heart Association also offer EMT Refresher, EMT Transition, IV/MAST Certification, CPR, ACLS, BLS, AED, and PALS educational courses. EMT-I and EMT-P courses are available through Denver based hospitals.

The RETAC has recently purchased an ALS mannequin, training programs and projectors for use by agencies to deliver in house training.

7. Mass Casualty

Mass casualty response is addressed in the Boulder County Emergency Plan and in Boulder County Protocols. The plan encompasses support and mutual aid for the county and surrounding areas in the event of a major mass casualty incident. All emergency agencies are included in this plan, which includes triage, treatment, destination, critique and de-briefing.

Mock disaster drills are conducted each year to cover a variety of mass casualty incidents such as floods, avalanches, down airplanes, fire, or multiple patients. Locations vary throughout the County to assure involvement by a wide variety of agencies. Currently the RETRAC is planning a large scale MCI event involving: Boulder, Gilpin, Jefferson, Clear Creek and Grand counties for early 2002.

(Please tell us how your EMS providers are working with the RETAC's to develop their trauma plan.)

Members of the county prehospital and clinical agencies are participants in the Foothills RETAC. Information and policy decisions are communicated to the appropriate Boulder County agencies for implementation. As to date, Boulder County Protocols address RETAC guidelines. Communications, training, and mass casualty goals have for the most part been achieved. All three hospitals in Boulder County have a Level III Trauma Designation. Each hospital has developed or is developing systems within their facility to assure optimal care for the trauma patient. As with pre-hospital care, hospitals are working within the guidelines of the local RETAC to assure consistency and communication. The RETAC Trauma Plan is obviously a process that under goes periodic revision and development and as changes are made the county EMS plan will incorporate changes as needed.

Additionally, the RETAC is preparing a needs assessment of the various agencies partially funded by a donation of \$2,500 from the Boulder County subsidy moneys.

2.3.B. IDENTIFY ANY AREAS NEEDING IMPROVEMENT - TREATMENT

Identify the changes or improvements you plan to make within your current treatment system. If none, please state "NONE", and move on to the next component

- Increase availability of BLS and ALS equipment to first response agencies
- Increase county-wide availability of SAEDs for use by fire departments and law enforcement
- Improve availability of ALS & BLS training aids to county providers
- Improve availability of 12-Lead EKG diagnostic capability
- Improve availability of specialized rescue equipment to agencies
- Add or maintain EMS education for emergency responders

2.3.C GOALS AND OBJECTIVES

In the space provided below please state your goals and objectives.

TREATMENT GOAL # 1

Some initial response agencies still struggle with funding the most basic of EMS equipment needs, this would include backboards, O2 tanks and regulators, trauma kits and other items. Recently, several paramedics have become available in communities that have traditionally had only BLS level initial response. Having initial ALS first response in areas with delayed transport availability is clearly beneficial to the patient. Tragically, several fire districts now have paramedics available, but are unable to fund the cost of ALS equipment. Other Districts wish to upgrade existing fire engine companies to ALS capability.

Please write a narrative containing all the objectives (process by which you intend to accomplish this goal) and state any progress toward attaining this treatment goal.

Objective A for Goal # 1

Establish repository of excess EMS equipment, make this available to agencies that need additional equipment.

Objective B for Goal # 1

Assist agencies in obtaining grant funding to acquire needed ALS & BLS equipment.

TREATMENT GOAL # 2

There are still fire departments that fail to provide routine availability of SAEDs within their district. Within the county we now have a physician advisor that strongly supports the initial responder use of SAEDs, this would equipping and training of law enforcement personal who routinely arrive on cardiac arrest scenes prior to EMS. Assistance in funding AED purchases will clearly enhance their availability.

Objective A for Goal # 2

Assist agencies in obtaining funding via private and grant sources to purchase AEDs.

Objective B for Goal # 2

Assist law enforcement agencies with training and protocols to improve AED availability and usage.

TREATMENT GOAL # 3

It is difficult for many responders at both the ALS & BLS level to maintain their skills without the proper training aids. When Boulder Community Hospital stopped it's pre-hospital service training program it gave all of it's training equipment (mannequins, intubation heads, rhythm generators, IO legs, etc) to the current contracted ambulance provider. While this equipment is advertised as available for use by agencies, it frequently is not, due to their high usage, scheduling conflicts, etc...This has left many of the ALS providers who operate in low volume areas not affiliated with this ambulance service unable to maintain skills due to lack of training equipment. This situation is similar for BLS equipment, especially with the need to provide AED trainers at all CPR classes.

Progress: The RETAC has purchased some training aids to assist agencies in the above mention needs. The availability of this equipment may not have been widely known to some EMS agencies. Additional training equipment still needs to be purchased and effective storage will need to be researched.

Objective A for Goal # 3

Develop repository of training equipment for use by county agencies via BCFFA EMS committee and RETAC, combine efforts to ensure adequate training resources and distribution.

Objective B for Goal # 3

Fund purchase of training equipment for use by county agencies via grants and donations.

TREATMENT GOAL # 4

Improve availability of 12-Lead diagnostic EKG. Several fire departments within Boulder County provide ALS level service. Current AHA guidelines advocate use of 12-Lead capabilities to improve patient treatment and destination decisions. The cost to upgrade to 12-Lead monitors is prohibitive to many agencies.

Objective A for Goal # 4

Assist in funding upgrades to 12-lead EKG capability via grant funding assistance.

TREATMENT GOAL # 5

Improve availability of specialized rescue equipment. BES and LEU provide specialized rescue capability to many of the districts, however response time is poor to certain areas due to distant or mountainous areas within Boulder County. As result agencies who operate in these remote locations are forced to provide some of this specialized rescue(extrication, low angle, ice or water rescue) functions themselves. The cost of added equipment is frequently a burden to these agencies, requiring certain equipment needs to go unanswered.

Objective A for Goal # 5

Assist in funding via grants of specialized rescue equipment for agencies who due to remote location are unable to use mutual aid resources.

TREATMENT GOAL # 6

Due to the increasing cost of initial certification and renewal courses from First Responder though Paramedic level many agencies are seeking grant funding to assist in training or maintaining certification of responders. These same agencies will striving to improve service are having difficulty funding specialized coursed such as: BTLS, IV, EKG and others.

Objective A for Goal # 5

Assist in funding via grants of initial, refresher and specialized EMS course for responders.

Documentation

2.4.A **EXISTING SYSTEM DESCRIPTION**

Describe your existing system and include the following:

- 1) Describe any Prehospital Care reporting system that your county may have other than the statewide data collection system provided by the state.
- 2) Identify any medical quality control measures your county may have in place to evaluate and improve medical care.

All agencies operating under Boulder County Protocol are required to complete a patient encounter form for all patients assessed or treated. All ambulance agencies also comply with the statewide data collection system. Failure to do so will result in suspension of their Boulder County Ambulance License. Physician Advisors or designee and/or EMS Education Coordinators review patient reports for compliance to Boulder County Protocols for each agency affiliated with the three County hospitals. QC issues are discussed directly with the agency, usually through the Physician Advisor, designee or EMS Education Coordinator of the hospitals.

1. Address any pre-hospital care reporting system that your county may have other than the statewide data collection system provided by the state.

The majority of Boulder County's pre-hospital agencies utilize a patient report form that has been developed through the joint efforts of first response agencies and the EMS education departments from all three county hospitals. This form not only documents all pertinent data required by the statewide data collection system, but also allows tracking of local protocol compliance and County EMS audits. Several pre-hospital agencies as well as licensed ambulance services use a separate and unique patient report form, which also complies with the statewide data collection system. (See Attachment C, Section II for Form)

2. Identify any medical quality control measures your county may have in place to evaluate and improve medical care.

Quality control is monitored by the Physicians Advisor or their designee at each hospital. Quality assurance computer programs are used at participating hospitals and transport agencies that tracks categories such as compliance to protocols; complete, legible and accurate charting; assessment; chief complaint and medical history; treatment; transfer information; destination; and patient outcome. The data is used to monitor and evaluate the appropriateness of overall activity of agencies operating under the BCPAC and the Boulder County Protocols. Results of this process are used to improve patient care on an ongoing and continuous basis.

2.4.B. IDENTIFY ANY AREAS NEEDING IMPROVEMENT - DOCUMENTATION

Identify the changes or improvements you plan to make within your current documentation system. If none, please state "NONE", and move on to the next component.

- Improve QA for non-transport agencies.
- Update county PCR to meet agency needs and anticipated state data point requirements.

2.4.C. STATE YOUR GOALS AND OBJECTIVES AND PLACE THEM HERE.

Documentation Goal # 1:

Improve QA for non-transport agencies.

Progress: Intern audit criteria have been developed to satisfy new Physician Advisor requirements.

Objective A for Goal # 1

- Develop infrastructure and finalize criteria for QA for process.

Documentation Goal # 2:

Update county Patient Care report

Progress: Committee is formed, awaiting data point definitions.

Objective A for Goal # 2

- Develop new PCR form and obtain consensus from user agencies.

Optional Component(s)

2.5.A *EXISTING SYSTEM DESCRIPTION* - Rescuer Safety

State any component of your EMS system that has not already been identified and describe what systems are in place within your county at this time.

The protection from communicable diseases is a priority for all EMS responders in Boulder County. This includes blood borne pathogens and inhaled organisms. Infection control practices are being taught and updated continually. Each hospital's emergency department has an infection control liaison for pre-hospital services, whose responsibilities include monitoring ambulance patients for communicable disease, notifying appropriate personnel of exposures, and tracking patient and care provider data in the event of an exposure to infectious substances. Instruction in personal protection and disease transmission is offered to all fire and ambulance agencies free of charge on an ongoing basis by the sponsoring hospitals.

Several agencies have implemented policies for protection from tuberculosis, including HEPA filter masks and high filtration dust/mist respirators. A countywide standard for protection from inhaled diseases has not been established.

Hazardous materials are an ever-present threat to both patients and care providers in Boulder County. Continuous education is offered to EMS personnel as a component of departmental training. All Boulder County hospitals are equipped with decontamination equipment and policies. Standard MSDS are maintained for known locally used materials. Computer database for materials not identified in MSDS is maintained in the emergency departments at each hospital. In addition the Boulder County Hazmat Team is fully equipped and staffed with personnel capable of handling decontamination and patient care in the hot zone. The Hazmat team also has CAMEO and TOMES computer programs that provide chemical information and patient care information at the scene of an incident.

2.5.B. IDENTIFY ANY AREAS NEEDING IMPROVEMENT - RESCUER SAFETY

- A comprehensive county-wide plan for both prevention and follow-up after an exposure has been developed however it is unclear to what degree all three Boulder County Hospitals have embraced this plan.
- Provide vaccinations for all responders needing assistance.
- Hazardous materials EMS training should be provided to all responders.
- Agencies need body substance isolation equipment

2.5.C. STATE YOUR GOALS AND OBJECTIVES AND PLACE THEM HERE.

Rescuer Safety Goal # 1: Countywide Plan for both Prevention training and Follow-up.

Institute an Infectious Disease Training program and voluntary program for annual TB screening to all EMS providers in Boulder County.

List the objective (process by which you intend to accomplish this goal) and state any progress toward attaining this goal.

Objective A for Goal # 1

- Establish training curricula for all agencies to utilize in their training program. Place the training program on the Boulder County Training Officers Association web site for easy access. Secondly provide funding for infectious disease training programs.

Objective B for Goal # 1

- Evaluate individual and agency interest in participation for annual TB screening.

Objective C for Goal # 1

- Fund the purchase and manpower for TB antibody testing through agency budget, county subsidy funds, or grants.

Objective D for Goal # 1

- The area hospitals, Boulder County Health Department, or the EMS Coordinators could accomplish administration of the test.

Rescuer Safety Goal # 2: Provide Vaccinations

Identify through the EMS County survey the departments that need funding for vaccinations.

List the objective (process by which you intend to accomplish this goal) and state any progress toward attaining this goal.

Objective A for Goal # 2

- Utilize the county subsidy money for vaccinations of EMS personnel.

Rescuer Safety Goal # 3: Establish a County Infectious Disease Plan

Establish consensus on the current countywide infection control plan. Ensure notification to all EMS providers, base hospitals and physician advisors of aspects of prevention, reporting, and follow-up within the current plan.

List the objective (process by which you intend to accomplish this goal) and state any progress

toward attaining this goal.

Objective A for Goal # 3

- Review countywide infection control plan to be incorporated in Boulder County protocols.

Objective B for Goal # 3

- Obtain assistance from the BCPAC group and the Boulder County Health Department in the consistent administration of policies for follow-up and treatment of exposures to Hepatitis, HIV, TB, and Meningococcus Meningitis.

Objective C for Goal # 3

- Educate all agencies in the infection control plan as well as annual blood borne pathogens.

Rescuer Safety Goal # 4: Hazardous Materials EMS training

Develop a Hazardous Materials EMS training program specifically dealing with how to care for the contaminated patient.

List the objective (process by which you intend to accomplish this goal) and state any progress toward attaining this goal.

Objective A for Goal # 4

- Develop curricula for Hazmat EMS make available to Boulder County Training Officers.

Objective B for Goal # 4

- Conduct county sponsored training sessions twice a year.

Objective B for Goal # 4

- Ensure that all responders are at least Hazmat awareness level and ideally operations level per OSHA and NFPA standards.

Rescuer Safety Goal # 5: BSI Equipment

Many agencies do not have BSI equipment including HEPA masks. The goal is to get the equipment to the agencies that are presently operating without.

List the objective (process by which you intend to accomplish this goal) and state any progress toward attaining this goal.

Objective A for Goal # 5

- Use survey information to determine which agencies need BSI equipment and follow county subsidy procedures for purchasing.

Section III

Planning and Coordination

Please mark all the EMS representatives that were active in the development of this report and plan:

County Health Department	_____	Others (describe):
County Wide EMS Council	__X__	
<hr/>		
EMS Provider Agencies:		
Ambulance Agencies	__X__	
Clinics or Hospitals	__X__	
Dispatcher Communications	__X__	
Fire Departments	__X__	
Search & Rescue Providers	__X__	
Training Center Representatives	__X__	
Physician Advisors	__X__	
RETAC Coordinator	__X__	
RETAC Council	_____	

3.1.A Existing System Description

Describe the way in which you coordinate emergency medical service efforts and do planning:
This section must include but is not limited to the following:

- 1). A list of agencies that actively participate (do not list agencies that do not regularly attend meetings) in your current county EMS Council

Avista, Boulder Community and Longmont United Hospitals, Pridemark Paramedics, Boulder County Sheriff's Department and the following fire departments and rescue organizations regularly attend current county EMS meetings: Boulder Mountain Fire Authority, Boulder Rural, Coal Creek, Eldorado Springs, Four Mile, Gold Hill, High Country, Indian Peaks, Jamestown, Lefthand, Lyons, Nederland, Sunshine, Sugarloaf FPD's and Rocky Mountain Rescue. Less active but who still attend are Boulder Fire, Cherryvale, Longmont Emergency Unit, and Boulder Emergency Squad.

- 2). Describe how you do needs assessment relative to planning for EMS within your county

Much of the needs assessment for this plan was via agency surveys, telephone interviews and

common needs. The RETAC will be pursuing a comprehensive needs survey in the near future.

3). Describe how you do needs assessment relative to requesting EMS grant funding within your county, i.e. some counties use a form to request information on agencies within the county who intend to submit grant applications to the EMS Grants program.

Several opportunities for funding were identified in this process for countywide resources (communications upgrades and training equipment). Countywide grants shall be initiated via the EMS sub-committee with assistance from the RETAC coordinator. Individual agencies may also seek to obtain funding for specific needs.

4). If you have a county EMS Council, how often do they meet and what is their relationship with the county commissioners.

The Boulder County Fire Firefighters association maintains an EMS sub-committee who is represented to the county commissions via Larry Stern, Boulder County Sheriff's Department, Office of Emergency Management.

5). If your county uses EMS subsidy funds to provide a County/Regional Coordinator for EMS, please explain what this coordinator does for EMS in the county

Unfortunately Boulder County does not currently benefit from a County EMS Coordinator, however the RETAC coordinator is working on behalf of Boulder County, keeping us informed on legal issues, projects, etc.

6). Describe how and if the RETAC will provide for planning and coordination in future years.

The RETAC coordinator has assisted in the development of this plan, and will implement the following years plan. Assistance shall provide by this counties EMS sub-committee.

3.1.B Identify Any Areas Needing Improvement

- Develop a Boulder County EMS Coordinator position

3.1.C Goals and Objectives

PLANNING & COORDINATION GOAL # 1 Develop a Boulder County EMS Coordinator
Although much progress has been made recently to coordinate activities. Many of these issues are carried by the local ambulance services, hospital representatives, physician advisors and EMS sub-committee members. Each with responsibilities to their own organization. Clearly a countywide coordinator would make for a more cohesive effort in systems development, QA/QA, training and associated aspects of EMS.

Objective A for Goal

Develop a means of funding a County Wide EMS coordinator position.

Section IV

Financial Reporting

Section IV

Financial Reporting

Current unspent balance (prior to and including calendar year 2000) \$ 15,921.70 (This figure should include all subsidy funds carried over from previous years)

County Subsidy for Calendar year 2001 \$ 15,092.33

Additional County Subsidy funds for year 2001 \$ _____ (Carry this amount forward to the following page)

Total Total Subsidy Funds Available \$ 31,014.03

Expenditures

In the table below please list all county subsidy expenses that were actually paid out of the county financial system between October 1, 2000 and September 30, 2001.

Table One

Date	Vendor/Payee	Amount Paid to Vendor	Detailed Description: Purpose of the expenditure and type of purchase or expenditure	Goal Reference Number (Found in Plan)
12/27	Indian Peaks FPD	\$ 3,100.00	AED	Treatment #7
12/27	Longmont Emer Unit	\$ 720.00	Pagers	Communications #7
12/27	Sugarloaf FPD	\$ 870.00	Suction	Treatment #5
12/27	Boulder Emer Squad	\$ 750.00	O2 Supplies	Treatment #5
12/27	High Country FPD	\$ 906.00	EMT Refresher, 1 st Responder	Treatment #7
12/27	Lefthand FPD	\$ 560.00	Spinal Equipment	Treatment #5
12/27	Nederland FPD	\$ 800.00	AED	Treatment #7
12/27	Fourmile FPD	\$ 1,000.00	Radios	Communications #7
12/27	Eldorado/Marshall	\$ 1,000.00	Suction, O2 supplies	Treatment #5

12/27	Mtn View FPD	\$ 350.00	CPR Manikins	Treatment #1
12/27	Bld Mtn Fire Auth	\$ 1,000.00	Medical packs	Treatment #5
12/27	BankOne	\$ 17.24	Checks	N/A
12/27	Eric Hill	\$ 35.83	Protocol manuals	Treatment #2
12/27	RETAC	\$ 2,500.00	Operating expense	Treatment #1
TOTAL		\$13,609.07		

Accounts Payable(Incurred expenses not yet paid for)

In the table below please list all anticipated expenses as of September 30, 2001. These are expenses that are either encumbered or committed to by the county, but the county has not disbursed funds as of September 30, 2001.

Table Two

Date	Vendor/Payee	Amount Anticipated	Detailed Description: Purpose of the expenditure, type of purchase or expenditure and anticipated expense date	Goal Reference Number (Found in Plan)
09/24	Various	\$17,092.33	Protocol manuals, admin reserve, EMS agency grants	
		\$		
		\$		
		\$		
		\$		
		\$		
		\$		
Total		\$17,092.33		

Financial Summary

Total Subsidy Funds Available (carry forward from previous page) \$ 31,014.03
Total Expenditures from Table One: \$ 13,609.07
Total Accounts Payable Expenses from Table Two: \$ 17,092.33

Total Amount Remaining as of September 30, 2001

\$ 512.63

I attest to the fact that information contained in the financial section is accurate and that the county has documentation for all expenditures:

Printed Name: _____

Signature: _____ Title: _____ Date: _____ Phone: _____

* This form must be signed by the county official responsible for county financial transactions.

If you have any questions on the financial forms you may call Laurie Borgers at (303)692-2987.

CHECK OFF LIST
COUNTY SUBSIDY PLAN
AND REPORT

___ 6 COPIES OF YOUR COMPLETED PLAN ARE ENCLOSED

___ ONE SET OF TRANSPORT AGENCY PROFILES IS INCLUDED WITH EACH PLAN COPY

___ ONE SET OF NON-TRANSPORT AGENCY PROFILES IS INCLUDED WITH EACH PLAN COPY

___ YOUR PLAN FINANCIAL INFORMATION IS SIGNED BY YOUR COUNTY FINANCE OFFICER

___ ONE COPY OF YOUR COMMUNICATIONS FUNCTIONAL DIAGRAM IS INCLUDED WITH EACH PLAN COPY

___ ONE COPY TO YOUR REGIONAL COORDINATOR WITH A COPY OF YOUR PLAN



Colorado Department of Public Health and Environment

Health Promotion and Disease Prevention Division

Pre-Hospital Care Program

HPDPD-PCP-A2

4300 Cherry Creek Drive South

Denver, Colorado 80246-1530

303-692-2987 or 303-692-2980

Distributed July 20, 2001

BOULDER County Plan and Report On Emergency Medical Services

