

**CLEAR CREEK COUNTY ENVIRONMENTAL HEALTH DEPARTMENT
REQUIREMENTS FOR COMMERCIAL AND MULTI-FAMILY
DEVELOPMENTS**



This packet will provide you with our standards and submittal requirements to assist you in obtaining the required permit from the Environmental Health Department. Prior to submitting a building permit application, the Environmental Health staff will review the septic system site plan and construction drawings for conformity with the County Individual Sewage Disposal Systems (ISDS) regulations. There are some public districts and private corporations which provide water and sanitation services in the mountains. You will need to determine if your property is within the existing or expansion boundaries of such a district. Many areas of the mountains are served by individual private wells and private on-site septic systems.

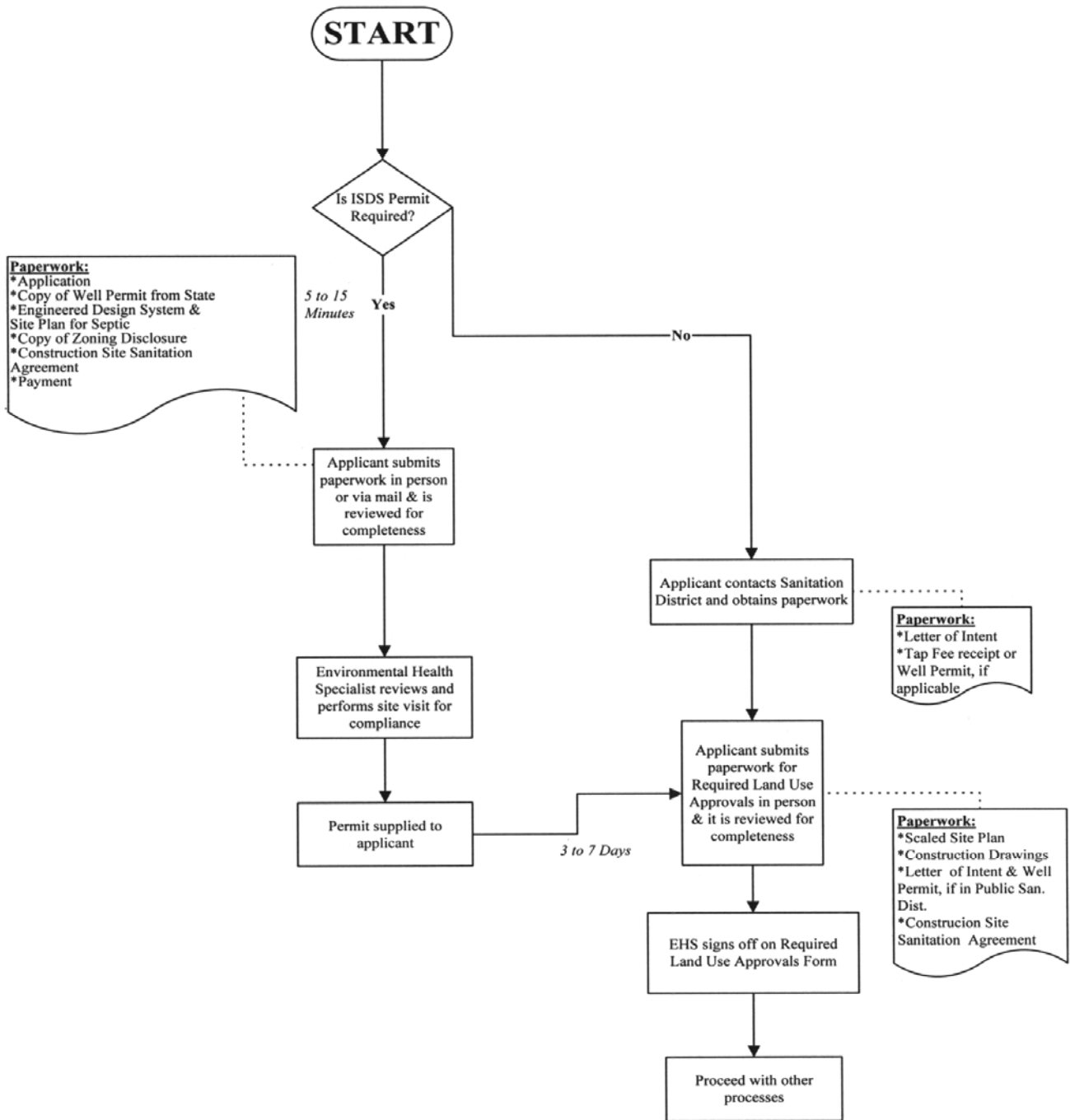
Please note that these are requirements for the Environmental Health Department only, additional submittal requirements will be required for other applicable County permits and reviews.

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Environmental Health Department Directory:

Environmental Health Secretary - (303)679-2428
 Annette Colle, Environmental Health Technician - (303)679-2420
 Tracy Volkman, Environmental Health Specialist - (303)679-2335
 Fax - (303)569-1103, E-mail - eh@co.clear-creek.co.us
 Website - <http://co.clear-creek.co.us/depts/environ.htm>

Flow Chart



General Sanitation Requirements

Individual Sewage Disposal Systems (ISDS): The owner of any structure or land site where people live, work or congregate shall insure that the structure or land site contains adequate, convenient and sanitary toilet and sewage disposal systems approved by the Environmental Health Department and in good working order. Under no circumstances shall sewage or effluent be permitted to be discharged upon the surface of the ground, or in excavations not specifically approved by the Environmental Health Department, or into the surface waters of the State. The property owner shall be responsible for proper maintenance of the system and for abatement or any nuisance arising from its failure

No person or persons shall install, alter, or repair an ISDS system within Clear Creek County, unless such person holds a valid ISDS Permit, issued by the Environmental Health Department in the name of the property owner for the specific construction, remodeling, installation, or use proposed at the location described on the permit.

Service by Community Sewer: Permits to construct, extend or replace an ISDS system shall be denied if municipal or Sanitation District sewers exist within 400 feet of the applicants' dwelling, place of business, or institution, if the Sanitation District agrees to provide sewer service and such property is within the Sanitation District.

Bedroom, for ISDS sizing, shall mean a visually separate space in a habitable structure containing a closet and a window large enough for an adult human to escape through the exterior.

Construction Site Sanitation

All construction sites must provide sanitation facilities for workers on the site. Failure to provide sanitation facilities will result in action by the Environmental Health Department. Please complete the **Construction Site Sanitation Form**, page 12, to acknowledge your understanding and assurance that sanitation facilities shall be provided.

Permit Application Requirements for New Systems and Repair of Existing Systems

System Design: All ISDS systems must be designed by a Colorado licensed Professional Engineer in accordance with the County's Individual Sewage Disposal System Regulations.

- A list of Engineers who are familiar with septic field conditions within Clear Creek County is provided to you on page 8 of this packet. You are free, however, to use any Colorado licensed Professional Engineer.

System Installation: All ISDS systems shall be installed by a County Licensed ISDS contractor or individual property owner. Construction, repair, alteration or excavation of an ISDS cannot commence until the ISDS Permit is issued by the Environmental Health Officer.

- A County Licensed ISDS Contractor is defined as a person engaged in and who holds themselves out as a specialist in the installation, alteration, and repair of ISDS systems. For the purpose of this definition and of the Systems Contractor Licensing requirements, a person who installs more than one (1) ISDS system in any twelve (12) month period shall be deemed to be engaged in, and if a said person receives compensation of any kind for their services, they shall be deemed to hold themselves out as a specialist in the installation, alteration, and repair of ISDS systems. The list of County Licensed ISDS Contractors who hold a valid Systems Contractor License from Clear Creek County is provided in this packet.

Submittal Requirements for New Systems and Repair of Existing Systems

Also see page 11 for checklist for ISDS permit application

- K **New ISDS Systems and Repair of Existing Systems**, found in this packet.
- K Copy of your **water supply system** (e.g., private well permit, deep grouted well permit, tap receipt for public system). If you have not received your permit form the State, but have an application that is being processed, you must submit a copy of the application with your ISDS Application. A copy of your well permit will be required prior to final inspection and sign off from the Environmental Health Specialist.
- K **ISDS Engineer Report**, prepared by a Colorado licensed Professional Engineer.
 - KThe Report must meet the applicable standards set forth in the County's Individual Sewage Disposal System Regulations. The "minimum horizontal distances requirements" table is provided on page 7 of this packet for your convenience.
 - KAll Reports must be dated within six (6) months of application submittal and stamped by a Colorado licensed Professional Engineer. An ISDS Engineer's Report is not necessary when the application is only for the replacement of a tank.
- K Copy of the **Zoning Disclosure Form**.
- K Copy of the signed **Construction Site Sanitation Form**.
- K **Application Fee**.
- K Copy of the **Landowner Authorization Form**, if applicable.

Requirements for Renewal of ISDS Permits

A Renewal ISDS Permit is required when an ISDS system has not been initiated or completed within two (2) years from the date of issuance of a New Permit.

Submittal Requirements:

- K **Renewal of an Individual Sewage Disposal System (ISDS) Permit Application Form**, provided in this packet.
- K **Letter from the Colorado licensed Professional Engineer**, who designed the system, answering the following questions and providing appropriate documentation when required.
 - There has been no change in the plans and specifications of the proposed ISDS system as set out in the original application.
 - The surrounding land, its use and zoning, have not changed so as to cause the original application not to be acceptable under the County's Individual Sewage Disposal System Regulations.
 - A change(s) is required to the plans and/or specifications of the proposed ISDS system from what was set out in the original application.
 - The surrounding land, its use or zoning, has changed causing the original application to be modified to meet the County's Individual Sewage Disposal System Regulations.

Enforcement Provision

For the purpose of inspecting and enforcing the County's Individual Sewage Disposal System Regulations and the terms and conditions of any permit issued, the Environmental Health Officer is authorized to enter upon private property for the purpose of determining if the sewage disposal facilities thereon are in compliance with these Regulations. The owner or occupant of every property having a System shall give the Environmental Health Officer free access to the property to conduct required tests, take samples, monitor compliance and make inspections.

Appeals

If the applicant alleges that there was an error in any denial or condition made by the Environmental Health Officer in granting a permit, the decision may be appealed to the Board of Health. Such appeal must be filed with the Board of Health in writing specifying the grounds thereof within sixty (60) days from the date of denial or issuance of the permit.

Procedures to Request an Individual Sewage Disposal System Inspection

In order to manage all the inspection requests for all open permits, we must ask that you follow the established procedures whenever possible. Inspection requests must be called in by 4:30 on a working day, to be scheduled on the following inspection day. We will make every effort to perform the requested inspection within 24 hours of your request. There may be circumstances where the inspection may be delayed and you will be notified when that is the case.

K Field Inspection Card: The card shall be conspicuously posted at the job site. Inspections will not be made and a \$25.00 fine will be imposed if the card is not posted.

K Inspections: One inspection shall be performed for each stage that requires an inspection as specified in the permit. Any additional inspections shall be charged an additional inspection fee of \$75.00. In all cases, at least one final inspection is required prior to backfilling any component of a system.

Clear Creek County Phone Numbers:

Local - (303)569-3251

Metro - (303)679-2300

Please enter 726 and your call will be directed into a voicemail box. The voice will prompt you to leave the following information:

- ÷Name and Phone Number of Person Requesting Inspection
- ÷Permit number and Address of the Property
- ÷Type of Inspection Being Requested (any further information, i.e., special instructions, lock box or gate combination, requested date for the inspection, if other than the next inspection day, or other special instructions can be left on the inspection line by just continuing to speak)

Be prepared with the required information before you call. It is very important to wait for the tone before responding and please speak clearly.

Minimum Horizontal Distances Requirements (in feet)

This information has been taken from Section IV of the County's Individual Sewage Disposal System Regulations and lists the minimum horizontal distances requirements in feet.

	Springs, Wells Suction Lines	Potable Water Lines	Potable Water Storage	Dwelling or Other Occupied Storage	Property Lines	Subsoil Drains	Lake, Water Course, Irrigation Ditch	Dry Gulches	Outback or Fill Material	Septic Tank
Building sewer or effluent lines	50 ²	10 ²	25 ²	0	10 ²	10 ²	50 ²	10 ²	10	-
Septic tanks, treatment plants, dosing tanks	50 ²	10 ²	25	5 ¹	10	10	50	10	10	-
Absorption trench, seepage bed, sand filter, or subsurface disposal system	100 ⁴ 200 ³	25 ²	25	20	10	25	50 ³	25 ³	See Sec. IV.B.3	6
Seepage Pit	100 ⁴ 200 ³	50 ²	25	20	25	25	50 ³	25 ³	See Sec. IV.B.3	6
Pre-treatment system discharging into an absorption trench, seepage bed, sand filter, or subsurface disposal system	100 ⁴	25 ²	25	20	10	10	25 ⁴	25 ⁴	See Sec. IV.B.3	6
Grey water absorption trench, seepage bed, sand filter, or subsurface disposal system	100 ⁴	25 ²	25	20	10	10	50 ⁴	25 ⁴	See Sec. IV.B.3	6
Lined wastewater pond	60	10 ²	25	15	10	10	25	10	20	5
Unlined sand filter in soils with a percolation rate slower than 60 minutes per inch	100 ⁴ 200 ³	25 ²	25	15	10	25	25	15	See Sec. IV.B.3	10
Unlined or partially lined wastewater pond	100 ⁴ 200 ³	25 ²	25	15	10	25	25	15	See Sec. IV.B.3	10
Lined sand filter	60	10 ²	25	15	10	10	25	10	20	5
Vault privy or vault	50	10 ²	25	15	10	10	25	10	10	-

1 - Distance shown shall not apply to treatment plants or effluent lines where recycling is permitted.

2 - Crossings or encroachments may be permitted at the points as noted above provided that the water or wastewater conveyance pipe is encased for a minimum distance of ten feet on each side of the crossing. A length of pipe shall be used with a minimum Schedule 40 rating of sufficient diameter to easily slide over and completely encase the water or wastewater conveyance. Ridged end caps of at least Schedule 40 rating must be glued or secured in a watertight fashion to the ends of the encasement pipe. A hole of sufficient size to accommodate the pipe shall be drilled in the lowermost section of the ridged cap so that the conveyance pipe rests on the bottom of the encasement pipe. The area in which the pipe passes through the endcaps shall be sealed with an approved underground sealant compatible with the piping used.

3 - Add 8 feet additional distance for each 100 gallons per day of design flow over 1,000 gallons per day as specified in the table.

4 - The distance indicated shall be considered as the straight line distance between the nearest ungrouted point along the well casing and the final effluent discharge point.

Colorado Licensed Professional Engineering Companies

These licensed PE's are familiar with septic field conditions within Clear Creek County

All Service Septic Engineering, LLC

6147 Braun Court
Arvada, Colorado 80004
Phone: (303)908-7823
tpetz1@comcast.net

Church OWC, LLC

P.O. Box 527
Wheat Ridge, Colorado 80034-0527
Phone: (720)898-3434

Clear Creek Engineering

C/O David F. George, P.E.
P.O. Box 991
Idaho Springs, Colorado 80452-0991
Phone: (303)567-4583

Craig S. Blett

Civil Engineering Design Service
194 S. Sawmill Road
Evergreen, Colorado 80439
Phone: (303)674-7451
Fax: (303)674-3580
Email: cblett@ibm.net

Ed Ford

Complete Engineering
912 Twelfth Street
Golden, Colorado 80401
Phone: (303)279-6418

Hepworth-Pawlak Geotechnical, Inc.

P.O. Drawer 1887
Silverthorne, Colorado 80498
Phone: (970)468-1989

Jeff Davis Engineering, LLC

24504 Norman Way
Evergreen, Colorado 80439
Phone: (303) 674-2224

KC Hamilton Engineering Inc.

250 Pearl Street, Unit 206
Denver, Colorado 80203
Phone: (720)261-9358
Fax: (303)733-7402

Kordziel Engineering, Inc.

P.O. Box 16267
Golden, Colorado 80402-6005
Phone: (303)216-1919
Fax: (303)216-9292

Michael P. Sheridan

9927 Hurty Avenue
Conifer, Colorado 80433
Phone: (303)838-4707

P. Budd, LLC

Mr. Phil Budd
P.O. Box 215
Pine, Colorado 80470
Phone: (303)816-7571

Otto Van Geet

58 Big Meadow
Idaho Springs, Colorado 80452
Phone: (303)567-9266 or
(303)384-7369

Resource Engineering, Inc.

Robert Rodgers, P.G., P.E.
30903 Upper Bear Creek Road
Evergreen, Colorado 80439
Phone: (303)674-6029
Fax: (303)670-0393

Terracon, Inc.

1242 Bramwood Place
Longmont, Colorado 80501
Phone: (303)776-3921

Operation and Maintenance of Individual Sewage Disposal Systems

In order to perform as expected for as many years as possible and to prevent failure of the System and the resulting contamination to your well and other wells in the vicinity, your System should have a regular schedule of inspection, maintenance and cleaning. The following table gives the guidelines for a minimum schedule of maintenance:

Individual Sewage Disposal System Maintenance		
Type of Component	Recommended Inspection Period	Required Cleaning or Pumping
Septic Tanks	Annual	When inspection reveals: 1) The bottom of the scum layer is within 3 inches of the bottom of the outlet device; or 2) The top of the sludge layer is within 8 inches of the bottom of the outlet device
Vaults	Every four years	At 85% capacity
Aeration Plants	Every six months	As necessary and as recommended by the manufacturer
Pumps and Pumping Chambers	Every six months	As necessary
Experimental Systems	As set forth in the Individual Sewage Disposal System Permit	

The Clear Creek County ISDS Regulations require the cleaning of all Systems to be performed by companies or individuals who hold a valid Systems Cleaner License from the Environmental Health Department.

Clear Creek County Licensed ISDS Cleaners

<u>Company</u>	<u>Phone</u>	<u>Expiration</u>
Air-O-Pure	(303)258-5370	12/31/09
Clearwater Cleanup Co.	(970)258-3597	12/31/09
Columbia Sanitary Services	(303)516-5370	12/31/09
Foothills Septic Pumping	(303)670-3160	12/31/09
John Todd, Inc.	(303)719-0520	12/31/09
Rocky Mountain Cabana Specialists	(970)418-1662	12/31/09
Shirley Septic	(303)838-6033	12/31/09

Other Resources:

These lists are not intended as recommendations, just general information.

Low Flow Manufacturers

<u>Company</u>	<u>Phone</u>
Architerra Enterprises, Inc.	(970)262-6727
Fanning and Associates	(303)289-4191
Microphor	(303)232-2664
Moen	(800)553-MOEN
Speakman	(303)286-1515
Kohler	(303)790-0435

Composting Toilet Manufacturers

Sun-Mar Corp.
600 Main Street
Tonawanda, New York 14150-0888
Phone: (905)332-1314
Fax: (905)332-1315
Email: compost@sun-mar.com

BioLet USA Inc.
550 North Sam Huston Blvd.
P.O. Box 592
San Benito, Texas 78586
Phone: (800)306-0045 or (210)399-3387
Fax: (210)399-0688

Composting Toilet Systems

Route 2
Newport, Washington 99156-9608
Phone: (509)447-3708

Clivus Multrum, Inc.
21 Canal Street
Lawrence, Massachusetts 01840-1801
Phone: (800)425-4887 or (978)725-5591

Incinerating Manufacturers:

Incinoleet
Research Products/Blankenship, USA
2639 Andjon
Dallas, Texas 75520
Phone: (214)358-4238
Fax: (214)350-7919
Email: incinolet@incinolet.com

Distributors of Alternative Systems

Architerra Enterprises, Inc.
P.O. Box 3359
Dillon, Colorado 80435
Phone: (970)262-6727

Alex Rachak Recreation, Inc.
P.O. Box 8228
Fort Collins, Colorado 80526
Phone: (303)553-5136 or
(303)221-5745

Clear Creek County
Environmental Health Checklist for
ISDS Permit Application

- New ISDS Systems and Repair of Existing Systems, Completed Application
- Completed Engineering & Site Plan (showing the following):
 - Accurate property boundaries along with a North arrow and ground slope direction.
 - Location of all existing and proposed structures, driveways, and the proposed site of the septic system, showing perc test hole locations.
 - Location of the proposed or existing water supply and the location of any water supplies located within 200 feet of the subject property.
 - Location of any streams, lakes, irrigation ditches, washes or other drainage conditions located on the parcel and within 100 feet of the property line.
 - Soil percolation test and soil profile data
 - Type of Septic System
- Copy of Water Supply System Permit
- Copy of the Zoning Disclosure Form
- Copy of the signed Construction Site Sanitation Form
- Copy of the Landowner Authorization Form, if applicable
- Application fee

**CLEAR CREEK COUNTY
CONSTRUCTION SITE SANITATION AGREEMENT FORM**

All construction sites must provide sanitation facilities for workers on the site. As stated in the County Individual Sewage Disposal System Regulations:

“The owner of any structure or land site where people live, work or congregate shall insure that the structure or land site contains adequate, convenient and sanitary toilet and sewage disposal systems approved by the Environmental Health Department and in good working order. Under no circumstances shall sewage or effluent be permitted to be discharged upon the surface of the ground, or in excavations not specifically approved by the Environmental Health Department, or into the surface waters of the State. The property owner shall be responsible for proper maintenance of the system and for abatement or any nuisance arising from its failure.”

Please be advised that any failure to provide sanitation facilities will result in action by the Environmental Health Department.

Please Check the proposed method of Sanitary Sewage Disposal:

- Portable Sanitation Facilities**
- Existing On Site Household Toilet Facilities**
- Trailer or Recreational Vehicle with Special Use Permit or Special Exception**
- Other (Please Explain) _____**

{ DO NOT PLACE PORTABLE SANITATION FACILITIES IN THE ROAD RIGHT OF WAY

I HAVE READ, UNDERSTAND AND WILL COMPLY WITH THE ABOVE.

Signature of Owner

Print name

Date

**CLEAR CREEK COUNTY
NEW ISDS SYSTEMS AND REPAIR OF EXISTING SYSTEMS
APPLICATION**

**Construction, repair, alteration or excavation of an ISDS cannot commence
until after the ISDS Permit is issued by the Environmental Health Department**

Owner: _____ **Phone:** _____

Mailing Address: _____

Engineer Designing ISDS System: _____ **Phone:** _____

ISDS Contractor Installing System: _____ **Phone:** _____

Mailing Address: _____

Legal Description/Location of Proposed System: _____
1/4 Section & Section-Township-Range or Subdivision-Lot & Block

Parcel Number: _____ **Size of Parcel:** _____

Permit to be: Picked up by: Owner *or* Contractor **OR** Mailed to: Owner *or* Contractor

Type of Permit and Fee: New installation (\$600) Repair or Alteration of an existing system (\$450)
 Vault or toilet only (\$300) State surcharge for newly authorized ISDS (\$23)

Number of bedrooms system designed to accommodate: _____

Do you plan any future additions to the building: Yes No

Driveway Permit Number _____ (New Construction)

Water Supply: Private well (attach permit) Public system (attach tap receipt)
 Deep grouted well (attach permit) Other _____

Type of ISDS System Proposed: Septic tank/absorption field Vault
 Recirculating sand filter/absorption field Aeration plant/absorption field Special toilet
(composting/incinerating)
 Blackwater vault/greywater absorption field Other _____

ATTACH A COMPLETE ENGINEER'S REPORT PREPARED BY A COLORADO LICENSED PROFESSIONAL ENGINEER, UNLESS THE APPLICATION IS ONLY FOR THE REPLACEMENT OF A TANK. APPROVAL MUST BE GIVEN BY THE CLEAR CREEK COUNTY ENVIRONMENTAL HEALTH OFFICER PRIOR TO BACKFILLING ANY PORTION OF THE SYSTEM.

- I certify that the information I have provided is true and correct to the best of my knowledge.
- I have read, understand, and will comply with the above information and attached documentation.
- I understand that an ISDS Permit must be issued prior to submitting an application for a building permit.
- I understand that the granting of an ISDS Permit does not indicate any implied approval of any other permit, land use request, or variance application.

Signature of Owner

Print name

Date

**ONCE ISSUED, THE ISDS PERMIT WILL EXPIRE IN TWO (2) YEARS
CLEAR CREEK COUNTY
RENEWAL OF AN ISDS PERMIT APPLICATION**

A Renewal ISDS Permit is required when an ISDS system has not been initiated or completed within two (2) years from the date of issuance of a new Permit.

Construction, repair, alteration or excavation of an ISDS system cannot continue after the initial ISDS Permit has expired, unless a Renewal ISDS Permit is issued by the Environmental Health Department.

Owner: _____ Phone: _____

Address: _____

Engineer Designing ISDS System: _____ Phone: _____

ISDS Contractor Installing System: _____ Phone: _____

Address: _____

Legal Description/Location of Proposed System: _____
1/4 Section & Section-Township-Range or Subdivision-Lot & Block

Parcel Number: _____ Size of Parcel: _____

Date of initial ISDS Permit: _____

Permit to be: Picked up or **Mailed to:** Owner Contractor

Type of Renewal Permit and Fee:

New installation (\$250) Repair or alteration of existing system (\$250) Vault or toilet only (\$250)

Attach a letter from the Colorado licensed Professional Engineer who designed the system answering the following questions and providing appropriate documentation when required. Such documentation must be stamped by the Engineer.

- There has been no change in the plans and specifications of the proposed ISDS system as set out in the original application.
- The surrounding land, its use and zoning, have not changed so as to cause the original application not to be acceptable under the County's *Individual Sewage Disposal System Regulations*.
- A change(s) is required to the plans and/or specifications of the proposed ISDS system from what was set out in the original application (***submit modified plans and/or specifications***).
- The surrounding land, its use or zoning, has changed causing the original application to be modified to meet the County's *Individual Sewage Disposal System Regulations* (***submit appropriate documentation addressing these issues***).

A RENEWAL ISDS PERMIT MUST BE OBTAINED PRIOR TO THE EXPIRATION OF THE INITIAL ISDS PERMIT. FAILURE TO OBTAIN THE RENEWAL PERMIT PRIOR TO THE EXPIRATION DATE OF THE INITIAL ISDS PERMIT WILL REQUIRE A NEW INITIAL ISDS APPLICATION.

- I certify that the information I have provided is true and correct to the best of my knowledge.
- I have read, understand, and will comply with the above information and attached documentation.
- I understand that the granting of a Renewal ISDS Permit does not indicate any implied approval of any other permit, land use request, or variance application.

Signature of Owner

Print name