PETROS & WHITE LLC
ATTORNEYS AT LAW

1999 BROADWAY, SUITE 3200
DENVER, COLORADO 80202

TELEPHONE: (303) 825-1980

FACSIMILE (303) 825-1983

March 31, 2011

Via Messenger
Colorado Water Conservation Board
1313 Sherman, Room 721
Denver, CO 80203

Re: Notice to Contest

Ladies and Gentlemen:

Enclosed for filing with the Board is Montrose County's Notice to Contest the San Miguel River (confluence Calamity Draw to confluence Dolores River) ISF appropriation in accordance with Rule 5k of the Rules Concerning the Colorado Instream Flow and Natural Lake Level Program, 2 CCR 408-2.

Very truly yours,

Charles B. White

CBW/kn
Enclosure
cc: Linda Bassi
Montrose County

BEFORE THE COLORADO WATER CONSERVATION BOARD

STATE OF COLORADO

IN THE MATTER OF PROPOSED INSTREAM FLOW APPROPRIATION IN WATER DIVISION 4: SAN MIGUEL RIVER (confluence Calamity Draw to confluence Dolores River)

NOTICE TO CONTEST INSTREAM FLOW APPROPRIATION

The Board of County Commissioners of Montrose County ("Montrose County"), by and through its attorneys, submits the following Notice to Contest in accordance with Rule 5k of the Rules Concerning the Colorado Instream Flow and Natural Lake Level Program, 2 CCR 408-2 (the "ISF Rules").

A. Identity of Contesting Party:

Board of County Commissioners of Montrose County ("Montrose County")
c/o Mr. Brian W. Wilson, P.E.
Director of Public Works
Montrose County, Colorado
161 South Townsend Ave.
Montrose, CO 81401
970-252-7000

Please direct all notices, pleadings, and correspondence to Montrose County's counsel:

Charles B. White
Petros & White, LLC
1999 Broadway, Suite 3200
Denver, CO 80202
Telephone: (303) 825-1980
cwhite@petros-white.com

B. Identification of Contested ISF Appropriation:

SAN MIGUEL RIVER (confluence Calamity Draw to confluence Dolores River)
CWCB ID: 09/4/A-009

C. Contested Facts (to the extent currently known):

1. Findings required by C.R.S. 37-92-102(3)(c) and Rule 5(i) of the ISF Rules:

   a. Whether there is a natural environment within the claimed reach of the San Miguel River that can be preserved to a reasonable degree with the Board's water right if granted.

   b. Whether such natural environment within the claimed reach of the San Miguel River will be preserved to a reasonable degree by the water available for the appropriation to be made.

   c. Whether such natural environment within the claimed reach of the San Miguel River can exist without material injury to water rights.

2. Compliance with C.R.S. 37-92-102(3):

   Whether the proposed ISF appropriation would deprive the people of the state of Colorado of the beneficial use of those waters available by law and interstate compact.

3. Protection of present uses and exchanges under C.R.S. 37-92-102(3)(b):

   The terms and conditions that the Board should attach to any appropriation of the San Miguel River ISF to insure that the ISF will be subject to the present uses or exchanges of water being made by other water users pursuant to appropriation or practices in existence on the date of such appropriation, whether or not previously confirmed by court order or decree.

4. Compliance with C.R.S. 37-92-102(4)(a):

   The terms and conditions that the Board should attach to any appropriation of the San Miguel River ISF, including without limitation the withdrawal of statements of opposition in water court cases, entry of stipulations for decrees or other forms of contractual agreements, including enforcement agreements, that will preserve the natural environment to a reasonable degree in a manner consistent with its obligations under Colorado law.

5. Reservation of right to contest other factual and legal matters.

   Montrose County reserves the right to identify other contested factual and legal issues prior to or at a hearing in this matter.

D. General Description of Data Upon Which Montrose County Will Rely (to the extent currently known):

1. See January 14, 2011 report by GEI Consultants, Inc. attached hereto as Exhibit A.

2. See January 27, 2011 report by Deere & Ault Consultants, Inc., attached hereto as Exhibit B.

3. See applications filed by Montrose County in Case Nos. 10CW164, 10CW165, 10CW166, 10CW167, 10CW169, and 10CW194, the application by Energy Fuels in Case No. 10CW176, the applications by the Norwood Water Commission in Case Nos. 10CW202 and 203, Water Division No. 4, and all statements of opposition of record in those cases.

4. All facts and data in the record of the Board to date, and in the files of the Colorado Division of Wildlife and U.S. Bureau of Land Management, regarding the proposed ISF.

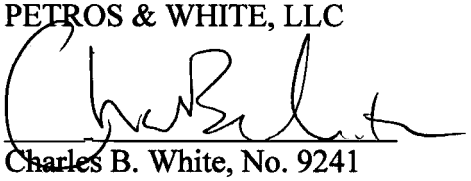
5. All facts and data to be offered in rebuttal.

6. Montrose County reserves the right to present other facts, data, documents, and factual and opinion testimony at a hearing on this matter.

Wherefore, Montrose County contests that proposed appropriation of the San Miguel River ISF requests that a hearing officer be appointed in accordance with Rule 5n of the ISF Rules.

Dated this 31st day of March, 2011.

PETROS & WHITE, LLC



Charles B. White, No. 9241
Petros & White, LLC
1999 Broadway, Suite 3200
Denver, CO 80202
Telephone: (303) 825-1980
cwhite@petros-white.com

ATTORNEYS FOR MONTROSE COUNTY

Geotechnical
Environmental
Water Resources
Ecological

GEI Consultants

Memo

To: Montrose County Commissioners

From: Don Conklin

CC: Dan Ault

Date: January 14, 2011

Re: Proposed San Miguel River Instream Flow Recommendations

I have reviewed the instream flow recommendations for the lower San Miguel River segment from Calamity Draw downstream to its mouth at the Dolores River. The documents I reviewed included the DRAFT and FINAL versions of the Executive Summary of the Instream Flow Recommendation apparently prepared by the Colorado Division of Wildlife (CDOW) and the U. S. Bureau of Land Management (BLM), supporting information on fish habitat modeling provided by Mark Uppendahl of CDOW, a technical memo on this issue prepared by Bikis Water Consultants, LLC, from April, 2010, a letter from Linda Bassi and Jeff Baessler of the Colorado Water Conservation Board (CWCB) dated March 10, 2010 responding to the Bikis memo, a letter from Mark Uppendahl of CDOW to Linda Bassi of CWCB dated April 5, 2010 concerning the Bikis report and the flow recommendations, and a presentation given by CDOW in 2010 on the status of native fish in the Lower Dolores River. I also spoke to Mark Uppendahl on two occasions concerning the technical aspects of the PHABSIM modeling. This memo contains my conclusions concerning the recommended minimum flows.

The flow recommendations are based on R2CROSS and Physical Habitat Simulation (PHABSIM) habitat modeling from the San Miguel River. These techniques are widely used in Colorado for assessing minimum flows. The R2CROSS information appears to have been collected in the standard manner. However, this technique is usually more useful in smaller streams than the San Miguel River. The more useful and robust PHABSIM technique provides better information for a river of this size and was used by CDOW and BLM as the primary basis to support the flow recommendations. The PHABSIM habitat simulation only presented information for bluehead and flannelmouth suckers, two native species in the San Miguel River.

The agencies present a small amount of biological data from 2001 indicating the presence of the native species in the lower San Miguel River. Information in the CDOW presentation on the Dolores River indicates that the San Miguel River supports approximately three times the abundance of native fish, including suckers, as the Dolores River does upstream of the San Miguel confluence. The information does not indicate that the fish populations in the San Miguel River are declining. Sampling by GEI on another project in 2008 and 2009 in the San Miguel River near Nucla, just a few miles upstream of the reach in question, demonstrated that both sucker species were common to abundant. The fish populations in the river at present are being preserved with the flow regime that has occurred over the years without designated minimum flows. These two native species are in decline in some areas in western Colorado, including the Dolores River upstream of the San Miguel River. CDOW lists insufficient flow as one reason for the decline in native fish species in the Dolores River.

The purpose of Colorado's Instream Flow Program is "reasonable preservation of the natural environment" as stated in the Instream Flow Recommendation. However, the flows recommended by CDOW and BLM appear to be higher than needed to preserve the natural environment. The

GEI Consultants, Inc./Ecological Division
4601 DTC Boulevard, Suite 900, Denver, CO 80237
303.662.0100 fax: 303.662.8757
www.geiconsultants.com

agencies' recommendation states that a flow of 325 cfs for the spring and early summer runoff period "is the **minimum** [emphasis added] amount necessary to preserve the natural environment...based on the assumption that 325 cfs would preserve 90% of the weighted useable area available to the bluehead sucker and 100% of the weighted useable area available to the flannelmouth sucker." The agencies' recommendation further states that "the instream flow recommendation of 170 cfs [during the high flow period of the year] was derived to **maximize** [emphasis added] the existing bluehead and flannelmouth sucker habitat available...." Maximizing habitat availability and preserving 90-100% of the optimum habitat for native suckers is not the stated purpose of the instream flow program. According to the PHABSIM information, a flow of 170 cfs to 325 cfs results in near-optimum habitat for flannelmouth suckers and relatively high levels of habitat for bluehead suckers. The flow data for the San Miguel River indicate that flows less than 170 cfs occur on most days during the year and the sucker populations persist and are preserved under the current flow levels. Optimum flow and habitat conditions only occur for a few days of the year. For the rest of the year, flows are too high or too low to provide optimum habitat. Flows considerably lower than 170 cfs would be sufficient to preserve habitat availability that now occurs on most days of the year for the two suckers and should be reflected in the minimum flow recommendations.

PHABSIM modeling by CDOW was used to determine habitat relationships for only the adult life stage of flannelmouth and bluehead suckers. Information was not presented for other life stages of these two species, such as for spawning, fry or juvenile fish, or for other native species in the river. Fry and juvenile suckers tend to have optimum habitat at lower flows than adults. Young suckers hatch in late spring or early summer, when flows are usually high in the river, and are vulnerable to being swept downstream. If the CDOW had modeled habitat relationships for the younger life stages, the optimum and minimum flow recommendations for preserving young suckers likely would be lower than for adult suckers alone. By not modeling habitat for other life stages, the agencies did not take into account important stages in the life history of the suckers. The flow recommendations of 325 cfs in spring and 170 cfs in summer may be too high and limit the survival of these life stages. Taking into account the habitat needs of young fish may have resulted in lower instream flow recommendations. The lack of information for other life stages of suckers or for other species limits the agencies' biological justification for the recommended flows.

The flow recommendations ignore the effects of higher flows on habitat availability. The habitat relationships for the two sucker species indicate a typical unimodal pattern, with optimum habitat availability at moderate flow levels of approximately 175 to 600 cfs. At flows lower than this range, habitat availability is lower, as expected. However, habitat availability is also lower at flows higher than this range. This occurs because water velocity gets too high and out of the suitable range for fish. Therefore, at flows higher than 600 cfs, habitat availability declines far out of the optimum range. The CDOW/BLM recommendation appears to state that flows of 325 cfs and higher are needed to protect optimum habitat while higher flows of 600 cfs or more, which appear to occur for at least a few weeks in most years, would have habitat availability similar to that at flows less than 170 cfs. This high flow period sometimes rivals the low flow period in terms of the detrimental effects on fish populations. Therefore, the agencies' flow recommendations cannot protect optimum habitat as long as normal runoff flows exceed approximately 600 cfs, as they do in most years.

The recommended instream flows do not appear to be available for nearly half the time based on the flow duration table in the DRAFT CDOW/BLM document. This indicates that the existing aquatic environment is being preserved with much lower flows than the recommendations. The FINAL CDOW/BLM document demonstrates that the recommendations are close to average flows in winter, yet average flow levels would not be met in approximately half the years. Since the purpose of instream flows is to preserve the existing aquatic environment, the recommended flows are more than what is necessary. Recommend flows that are met more frequently with existing hydrology would be more reasonable as minimum flows.

The recommended flows consist of five seasonal periods. This level of complexity is unusual and may not be necessary. Two seasonal tiers are more common and three tiers may be reasonable to account for seasonal changes and higher flows during spring runoff. The five tiers of instream flow recommendations appear to be too high and too complex for the lower San Miguel River. The recommended flows appear to be designed to enhance habitat for the two sucker species rather than to maintain and preserve the aquatic environment. Minimum instream flows for the lower San Miguel River to maintain existing conditions would be considerably lower than the CDOW/BLM recommendations.

Alternative Flow Recommendations

The available information indicates that the fish community in the lower San Miguel River is healthy. This reach of the river is classified as Warm 1 by the Colorado Water Quality Control Commission, indicating that it supports the expected abundance and diversity of fish. Therefore, the flows that are currently experienced in the river are sufficient to preserve the fishery and minimum flows that reflect current low flows would maintain the existing fish community. This includes the current seasonal pattern of high and low flows and the yearly patterns of wet and dry years. Alternative minimum flow recommendations are discussed below.

During the high flow period in late spring and early summer, the agencies' recommended flow of 325 cfs would be available in most years from April 15 to June 14, based on the flow data in the DRAFT agencies' filing. However, a flow of 200 cfs would still provide 90% of optimum habitat for flannelmouth suckers and 70% of optimum habitat for bluehead suckers. The lower minimum flow likely would be more suitable for younger life stages of suckers which are more sensitive to higher velocity. A minimum flow of 200 cfs is appropriate for the period from April 15 through June 14.

The agencies' recommendations of 170 cfs and 115 cfs through the summer are not available for approximately a third of the years in July and August. The existing fish community has apparently been preserved with lower flows in about one year out of three. Therefore, a lower minimum flow will preserve the fish community. A flow of 100 cfs would provide approximately 50% of optimum habitat for bluehead suckers and 35% for flannelmouth suckers. A flow of 100 cfs would be available in almost all years in July. However, in the irrigation season in August, even this flow would be met only in two years out of three. A flow of 100 cfs would still provide more habitat than the lower winter flows that normally occur. A minimum flow of 100 cfs is appropriate for the period from June 15 through August 31.

For the fall and winter period, the agencies' recommendation is 80 cfs. This would be available only about 50-60% of the time in December through February. Lower historical flows in many years have preserved the existing fish community through the winter. The flow availability information indicates that flows of 60 cfs have been available through the winter in nearly eight out of ten years. A minimum flow of 60 cfs would provide approximately 20% of optimum habitat for bluehead suckers and nearly 30% for flannelmouth suckers and is appropriate for the period from September 1 through April 14.

DEERE & AULT
CONSULTANTS, INC.

MEMORANDUM

TO: **Montrose County Commissioners**

cc: **Brian Wilson, Barney White, Don Conklin**

FROM: **Branden Effland, P.E.**

DATE: **January 27, 2011**

RE: **Review of FINAL San Miguel River ISF Executive Summary - Hydrologic Data and Analysis**

Deere & Ault Consultants, Inc. (D&A), on behalf of Montrose County, has reviewed the FINAL version of the Executive Summary of the Instream Flow Recommendation prepared by the Colorado Water Conservation Board (CWCB), the Colorado Division of Wildlife (CDOW), and the U.S. Bureau of Land Management (BLM) for the lower San Miguel River (i.e., Confluence with Calamity Draw to Confluence with Dolores River. D&A's review concentrated on the section of the document titled: "Hydrologic Data and Analysis". Mr. Don Conklin of GEI Consultants, also on behalf of Montrose County, reviewed the portions of the document related to minimum flow recommendations required for habitat preservation and documented his comments in a January 14, 2011 memorandum. The following are comments and questions generated by D&A's review:

1. D&A questions the CWCB's need to create a hydrologic regime (i.e., synthetic gage record) for the Lower Terminus (LT) of the recommended instream flow (ISF) reach when the ISF reach begins some 17.24 miles upstream. By adjusting the Uravan Gage to represent the flow regime at the very most downstream location of the ISF reach, it's likely the CWCB created a synthetic gage that is less representative of the hydrologic conditions of the entire reach. The CWCB could just have easily created a hydrologic regime for the Upstream Terminus (UT) which would be representative of flow conditions at the beginning of the ISF reach.

2. The report describes how a synthetic hydrograph was developed, for further adjustment, at the existing Uravan gage site by adjusting the existing flow record by the consumptive uses of numerous diversions in the basin above the gage. The consumptive use of diversions can vary greatly depending on actual use, irrigation methods, etc. No detail was provided as to how the CWCB estimated the consumptive use of these upstream diversions. This detail should be provided.

600 S. Airport Road, Building A, Suite 205
Longmont, CO 80503
Phone: 303-651-1468 • Fax: 303-651-1469

3. The CWCB adjusted the Uravan Gage flows to account for the additional (approx. 58 sq. mi.) tributary drainage area at the LT. It appears CWCB accomplished this by adjusting the flows by the ratio of the amount of contributing basin area at the LT (1557.17 sq. mi.) to the contributing area at the Uravan Gage (1499 sq. mi.). By doing this, the CWCB is equally weighting the contribution, on a square mile basis, of the drainage area that lies below the Uravan Gage with the remainder of the tributary basin. According to the CWCB, approximately 40 percent of the basin is in high elevation, forested subalpine and alpine zones in the San Juan Mountains. The CWCB further states that "most of the flow in the San Miguel River is derived from snowmelt at higher elevations". Therefore, the additional drainage area that lies downstream of the Uravan Gage would not contribute, on a square mile basis, as much as the average of the entire drainage basin.

4. The CWCB, after creating synthetic flow data meant to represent discharge at the San Miguel River above the LT, computed a Geometric Mean of the adjusted daily flow data. The CWCB then plotted the daily geometric mean of the LT gage in comparison to their recommended instream flows. D&A does not believe this comparison is useful in and of itself. If the geometric mean happens to be similar to the median, the flow data provided is only indicative of the flow that would be available half the time, or 5 out of 10 years. D&A believes an analysis similar to what was presented in the DRAFT Executive Summary is more useful. Table 2 of the DRAFT Executive Summary presented the estimated flow of the San Miguel River at the Uravan Gage in terms of a percentage of exceedence. The percentage of exceedence provides the probability of a certain flow rate to be equaled or exceeded. Figure 1 in the FINAL Executive Summary illustrates that the ISF is below the mean but it does not provide an idea of how often the ISF is equaled or exceeded, only that the mean flows are greater than the ISF.

5. It is D&A's opinion that the hydrologic analysis conducted and documented in the DRAFT Executive Summary using the physical data (1954-2004) collected by the USGS stream gage for the San Miguel River at Uravan, CO (#09177000), coupled together with the percent exceedence analysis, allowed for a better comparison of the minimum instream flow recommendations with physical availability within the San Miguel ISF reach. The hydrology presented in the Final Executive Summary contains errors, as described above, does not contain nor allow for a percent exceedence analysis, and furthermore creates a synthetic hydrologic regime that D&A believes is not representative of the entire ISF reach.