Form 1. NEWUDS Input Form for Single Users

System ID | System Name | System Type | code | Use Type | SIC code | NEUse Code | SIC Code code

Owner ID | Owner Name | Owner Type | code | Contact Name | Phone

Address ID | Mail Line1 | Mail Line2 | City | State | Zip | Street Line1 | Street Line2 | City | State | Zip | Address type code

Location ID | Location Name | Location Scale | Location Scale Code

State | code | County | code | MCD | code | HUC | code | State Basin | code

Latitude | Longitude | Location Det Method | LDM code

Site ID	Site Type	Withdrawal Site or Distribution Name	Conv ID	Action	Site ID	Site Type	User Site Name	Conv ID	Action	Site ID	Site Type	Return Site or Collection Name

Site ID	Resource ID	Resource Name	Site ID	Resource ID	Resource Name

Appendix 3_Form 1. NEWUDS input form for single users.

Form 2. Explanation of Aggregate of Users Worksheet

Area Name		Year	

Domestic			
Total Population	**Tpop**	Total Domestic use	**TDU** = Tpop x PCU
Community Water System	**CWSpop**	Domestic CWS	**CWSDU** = %CWS x TDU
Self Supply	**Sspop** = Tpop - CWSpop	Domestic SS	**SSDU** = TDU - CWSDU
Percent on CWS	**%CWS** =CWSpop/Tpop	Con Use	**TDCU** = TDU x 0.15
Per capita use	**PCU**	Domestic CWWS	**CWWSDU** = (TDU – TDCU) x %CWWS
Percent CWWS	**%CWWS**	Domestic SD	**SDDU** = TDU – TDCU - CWWSDU
Est SW	Est A1 **%A1Pop**	Est A2 **%A2Pop**	A3 **%A3Pop**
0.00	SSDU x %A1Pop	SSDU x %A2Pop	SSDU x %A3Pop

Commercial			
SIC group	IWRMAIN Coefficient (gal/day/employee)	Number of employees	Estimated Use (Mgal/d)
40-49	**S40-49C** = 51	**#ES40-49**	S40-49C x #ES40-49/1000000
50-59	**S50-59C** = 58	**#ES50-59**	S50-59C x #ES50-59/1000000
60-67	**S60-67C** = 71	**#ES60-67**	S60-67C x #ES60-67/1000000
70-89	**S70-89C** = 106	**#ES70-89**	S70-89C x #ES70-89/1000000
91-92	**S91-92C** = 71	**#ES91-92**	S91-92C x #ES91-92/1000000
Consumptv Use	**CCU** = TCU x 0.1	Total Use	**TCU** = Σ SC x #ES
Estimated CWWS	**CWWSCU** =(TCU – CCU) %CWWS	Estimated CWS	**CWSCU** = TCU x %CWS
Estimated SD	**SDCU** = TCU – CCU - CWWSCU	Estimated SS	**SSCU** = TCU – CWSCU
Est SW **%SW**	Est A1 **%A1**	Est A2 **%A2**	A3 **%A3**
SSCU x %SW	SSCU x %A1	SSCU x %A2	SSCU x %A3

Livestock			
Animal Group	Coefficient (gal/day/an)	Number of animals	Estimated Use (Mgal/d)
Dairy	**DC** = 30	**#AD**	DC x #AD / 1000000
Cattle	**CC** = 20	**#AC**	CC x #AC / 1000000
Pigs	**PC** = 5	**#AP**	PC x x#AP / 1000000
Sheep	**SC** = 5	**#AS**	SC x #AS / 1000000
Chickens	**ChC** = 0.01	**#ACh**	ChC x #Ach / 1000000
		Total use	**TLU** = Σ AC x #A
Consumptive Use	**LCU** = TLU x 0.5	Return	**TLR** = TLU - LCU
Estimated SW **%SW**	Est A1 **%A1**	Est A2 **%A2**	A3 **%A3**
TLU x %SW	TLU x %A1	TLU x %A2	TLU x %A3

Appendix 3_Form 2a. Explanation of aggregate of users worksheet with formulas and relations for estimating water use by geographic area. [SW, Surface water; A1, Crystalline-rock Aquifers; A2, Glacial Deposit Aquifers; A3, NE Sandstone-rock Aquifers]

Form 2. Explanation of Aggregate of Users Worksheet

Industrial

SIC group	IWRMAIN Coefficient	Number of employees	Estimated Use
15-17	**S15-17C** = 35	**#ES15-17**	S15-17C x #ES15-17
20	**S20C** = 469	**#ES20**	S20C x #ES20
21	**S21C** = 0	**#ES21**	S21C x #ES21
22	**S22C** = 315	**#ES22**	S22C x #ES22
23	**S23C** = 13	**#ES23**	S23C x #ES23
24	**S24C** = 78	**#ES24**	S24C x #ES24
25	**S25C** = 30	**#ES25**	S25C x #ES25
26	**S26C** = 863	**#ES26**	S26C x #ES26
27	**S27C** = 42	**#ES27**	S27C x #ES27
28	**S28C** = 289	**#ES28**	S28C x #ES28
29	**S29C** = 1045	**#ES29**	S29C x #ES29
30	**S30C** = 119	**#ES30**	S30C x #ES30
31	**S31C** = 148	**#ES31**	S31C x #ES31
32	**S32C** = 202	**#ES32**	S32C x #ES32
33	**S33C** = 178	**#ES33**	S33C x #ES33
34	**S34C** = 95	**#ES34**	S34C x #ES34
35	**S35C** = 58	**#ES35**	S35C x #ES35
36	**S36C** = 71	**#ES36**	S36C x #ES36
37	**S37C** = 63	**#ES37**	S37C x #ES37
38	**S38C** = 66	**#ES38**	S38C x #ES38
39	**S39C** = 36	**#ES39**	S39C x #ES39
Consumptive Use	**ICU** = TIU x 0.1	Total use	**TIU** = Σ SC x #ES
Estimated CWWS	**CWWSIU** = (TIU – ICU) x %CWWS	Estimated CWS	**CWSIU** = TIU x %CWS
Estimated SD	**SDIU** = TIU – ICU - CWWSIU	Estimated SS	**SSIU** = TIU - CWSIU
Est SW **%SW**	Est A1 **%A1**	Est A2 **%A2**	A3 **%A3**
TIU x %SW	TIU x %A1	TIU x %A2	TIU x %A3

Irrigation

Irrigation type	Coefficient (inches/acre)	Number of acres	Estimated Use
Spray	**SIAC**	**#acres**	SIAC x #acres
Drip	**DIAC**	**#acres**	DIAC x #acres
Furrow	**FIAC**	**#acres**	FIAC x #acres
		Total Use	**TIrU** = Σ (SDF)IAC x #acres
Consumptive Use	**TIrCU** = TIrU x 0.9	Return	**TIrR** = TIrU - TIrCU
Est SW **%SW**	Est A1 **%A1**	Est A2 **%A2**	A3 **%A3**
TIrU x %SW	TIrU x %A1	TIrU x %A2	TIrU x %A3

Appendix 3_Form 2a. Explanation of aggregate of users worksheet with formulas and relations for estimating water use by geographic area. [SW, Surface water; A1, Crystalline-rock Aquifers; A2, Glacial Deposit Aquifers; A3, NE Sandstone-rock Aquifers] --Continued

Form 2. Aggregate of Users Worksheet

Area Name		Year	

Domestic			
Total Population		Total Domestic use	
Community Water System		Domestic CWS	
Self Supply		Domestic SS	
Percent on CWS		Con Use	
Per capita use		Domestic CWWS	
Percent CWWS		Domestic SD	
Est SW	Est A1	Est A2	A3

Commercial			
SIC group	IWRMAIN Coefficient (gal/day/employee)	Number of employees	Estimated Use (Mgal/d)
40-49	51		
50-59	58		
60-67	71		
70-89	106		
91-92	71		
Consumptive Use		Total Use	
Estimated CWWS		Estimated CWS	
Estimated SD		Estimated SS	
Est SW	Est A1	Est A2	A3

Livestock			
Animal Group	Coefficient (gal/day/an)	Number of animals	Estimated Use (Mgal/d)
Dairy	30		
Cattle	20		
Pigs	5		
Sheep	5		
Chickens	0.01		
		Total use	
Consumptive Use		Return	
Estimated SW	Est A1	Est A2	A3

Appendix 3_Form 2b. Worksheet for aggregate of users for estimating water use by geographic area. [SW, Surface water; A1, Crystalline-rock Aquifers; A2, Glacial Deposit Aquifers; A3, NE Sandstone-rock Aquifers]

Form 2. Aggregate of Users Worksheet

Industrial

SIC group	IWRMAIN Coefficient	Number of employees	Estimated Use
15-17	35		
20	469		
21	0		
22	315		
23	13		
24	78		
25	30		
26	863		
27	42		
28	289		
29	1045		
30	119		
31	148		
32	202		
33	178		
34	95		
35	58		
36	71		
37	63		
38	66		
39	36		

Consumptive Use		Total use	
Estimated CWWS		Estimated CWS	
Estimated SD		Estimated SS	

Est SW	Est A1	Est A2	A3

Irrigation

Irrigation type	Coefficient (inches/acre)	Number of acres	Estimated Use
Spray			
Drip			
Furrow			
		Total Use	
Consumptive Use		Return	

Est SW	Est A1	Est A2	A3

Appendix 3_Form 2b. Worksheet for aggregate of users for estimating water use by geographic area. [SW, Surface water; A1, Crystalline-rock Aquifers; A2, Glacial Deposit Aquifers; A3, NE Sandstone-rock Aquifers]--Continued

Form 3. NEWUDS Input Form for Aggregate of Users

System ID		System Name	
		System Type code	5
Location ID		Location Name	
		Location Determination Method Code	2
		Loc Scale Code	2
State		County	
State code		MCD	
		CO Code	
		MCD code	

Site ID	Use Code	Site Type	General Ground-water Withdrawals	Resource ID	Resource Name
	78	1			
	78	1			
	78	1			

Site ID	Use	Site Type	Local Distribution System
	60	12	
	60	12	
	60	12	
	60	12	

Site ID	Use	Site Type	User	From Sites	To Sites
	67	24	DOM		
	79	24	COM		
	80	24	IND		
	1	24	IRR		
	81	24	LVS		
		24			

Site ID	Use	Site Type	Local Collection System
	61	14	
	61	14	
	61	14	

Site ID	Use	Site Type	General Ground-water Returns	Resource ID	Resource Name
	78	5			
	78	5			
	78	5			

From Site ID	To Site ID	Conveyance ID	Action	From Site ID	To Site ID	Conveyance ID	Action

Appendix 3_Form 3. NEWUDS input form for aggregate of users.

Form 4. Explanation of Community System Worksheet for Geographic Areas with More Than One Distribution or Collection System

MCD Name _____ Year _____

Domestic								
Supply	Population	Domestic withdrawals and deliveries		Domestic Consumptive Use	Disposal	Population	Domestic Releases and Returns	
Total for MCD	**Tpop**	**TDU =** from Form 2		**TDCU=** from Form 2	Total for MCD	**Tpop**	**TDR =** TDU-TDCU	
Community Water System	**CWSpop**	**CWSDU =** CWSpop*PCU/1000000		**CWSDCU=** CWSDU*0.15	Community Wastewater System	**CWWSpop**	**CWWSDR =** TDR*%CWWS	
CWS1	**CWS1pop**	**CWS1DU =** CWS1pop*PCU/1000000		**CWS1DCU =** CWS1DU*0.15	CWWS1	**CWWS1pop**	**CWWS1DR =** CWWSDR*(CWWS1pop/CWWSpop)	
CWS2	**CWS2pop**	**CWS2DU=** CWS2pop*PCU/1000000		**CWS2DCU =** CWS2DU*0.15	CWWS2	**CWWS2pop**	**CWWS2DR =** CWWSDR*(CWWS2pop/CWWSpop)	
CWS3	**CWS3pop**	**CWS3DU =** CWS3pop*PCU/1000000		**CWS3DCU =** CWS3DU*0.15	CWWS3	**CWWS3pop**	**CWWS3DR =** CWWSDR*(CWWS3pop/CWWSpop)	
Percent on PS	**%CWS =** CWSpop/Tpop				Percent on CWWS	**%CWWS =** CWWSpop/Tpop		
Per capita use	**PCU**							

Appendix 3_Form 4a. Explanation of community system worksheet with formulas and relation for estimating water use by geographic area with more than one distribution or collection system.

Form 4. Explanation of Community System Worksheet for Geographic Areas with More Than One Distribution or Collection System

MCD Name _____ Year _____

Commercial						
	% of land use area in Distribution System	Total Commercial withdrawals and deliveries	Commercial Consumptive Use		% of land use area in Collection System	Commercial Returns and Releases
Total for MCD	1.00	**TCU** = from Form 2	**CCU** = from Form 2	Total for MCD	1.00	**TDDR** = TCU-CCU
Community Water System	**%CLUCWS**	**CWSCU** = from Form 2	**CWSCCU** = from Form 2	Community WW System	**%CLUCWWS**	**CWWSCU** = from Form 2
CWS1	**%CLUCWS1**	**CWS1CU** = CWSCU * (%CLUCWS1/(%CLUCWS)	**CWS1CCU** = CWS1CU * 0.10	CWWS1	**%CLUCWWS1**	**CWWS1CU** = CWWSCU * (%CLUCWWS1/(%CLUCWWS)
PS2	**%CLUCWS2**	**CWS2CU** = CWSCU * (%CLUCWS2/(%CLUCWS)	**CWS2CCU** = CWS2CU * 0.10	CWWS2	**%CLUCWWS2**	**CWWS2CU** = CWWSCU * (%CLUCWWS2/(%CLUCWWS)
PS3	**%CLUCWS3**	**CWS3CU** = CWSCU * (%CLUCWS3/(%CLUCWS)	**CWS3CCU** = CWS3CU * 0.10	CWWS3	**%CLUCWWS3**	**CWWS3CU** = CWWSCU * (%CLUCWWS3/(%CLUCWWS)

Industrial						
	% of land use area in Distribution System	Total Industrial withdrawals and deliveries	Industrial Consumptive Use		% of land use area in Collection System	Industrial Returns and Releases
Total for MCD	1.00	**TIU** = from Form 2	**ICU** = from Form 2	Total for MCD	1.00	**TIR** = TIU-ICU
Community Water System	**%ILUCWS**	**CWSIU** = from Form 2	**CWSICU** = from Form 2	Community WW System	**%ILUCWWS**	**CWWSIU** = from Form 2
CWS1	**%ILUCWS1**	**CWS1IU** = CWSIU * (%ILUCWS1/(%ILUCWS)	**CWS1ICU** = CWS1IU * 0.10	CWWS1	**%ILUCWWS1**	**CWWS1IU** = CWWSIU * (%ILUCWWS1/(%ILUCWWS)
CWS2	**%ILUCWS2**	**CWS2IU** = CWSIU * (%ILUCWS2/(%ILUCWS)	**CWS2ICU** = CWS2IU * 0.10	CWWS2	**%ILUCWWS2**	**CWWS2IU** = CWWSIU * (%ILUCWWS2/(%ILUCWWS)
CWS3	**%ILUCWS3**	**CWS3IU** = CWSIU * (%ILUCWS3/(%ILUCWS)	**CWS3ICU** = CWS3IU * 0.10	CWWS3	**%ILUCWWS3**	**CWWS3CU** = CWWSIU * (%ILUCWWS3/(%ILUCWWS)

Appendix 3_Form 4a. Explanation of community system worksheet with formulas and relation for estimating water use by geographic area with more than one distribution or collection system --Continued.

Form 4. Community System Worksheet for Geographic Areas with More Than One Distribution or Collection System

MCD Name _____ Year _____

Domestic						
Supply	Population	Domestic withdrawals and deliveries	Domestic Consumptive Use	Disposal	Population	Domestic Releases and Returns
Total for MCD				Total for MCD		
Community Water System				Community Wastewater System		
CWS1				CWWS1		
CWS2				CWWS2		
CWS3				CWWS3		
Percent on PS				Percent on CWWS		
Per capita use						

MCD Name _____ Year _____

Commercial						
	% of land use area in Distribution System	Total Commercial withdrawals and deliveries	Commercial Consumptive Use		% of land use area in Collection System	Commercial Returns and Releases
Total for MCD	1.00			Total for MCD	1.00	
Community Water System				Community WW System		
CWS1				CWWS1		
PS2				CWWS2		
PS3				CWWS3		

Appendix 3_Form 4b. Worksheet for community systems for estimating water use by geographic area with more than one distribution or collection system.

Form 4. Community System Worksheet for Geographic Areas with More Than One Distribution or Collection System

Industrial						
	% of land use area in Distribution System	Total Industrial withdrawals and deliveries	Industrial Consumptive Use		% of land use area in Collection System	Industrial Returns and Releases
Total for MCD	1.00			Total for MCD	1.00	
Community Water System				Community WW System		
CWS1				CWWS1		
CWS2				CWWS2		
CWS3				CWWS3		

Appendix 3_Form 4b Worksheet for community systems for estimating water use by geographic area with more than one distribution or collection system--Continued.

Form 5. Community-Water System Worksheet

Community-Water System Name		Year	
Population Served		Per Capita	

Withdrawals to Regional Distribution System								
Resource Transfers	**Rate**	**Withdrawal Points**	**Withdrawal Rate**	**Treatment Plant**	**Treatment Plant Deliveries**	**Primary Reg Distribution System**	**Deliveries**	**Primary Regional Unaccount**

From Regional/Local Distribution to Users								
Secondary Regional Distribution System	Deliveries	Local Distribution System	Total Deliveries	Domestic	Commercial	Industrial	Local Distribution System Unaccount	Secondary Regional Unaccount

Appendix 3_Form 5. Worksheet for recording and estimating water use by community-water systems.

Form 6. NEWUDS Input Form for Community-Water Systems

System ID		System Name			System Type	com water sys	Use		Use code	60	
					ST code	1					
Owner ID		Owner Name			Owner Type				Contact Name		
					OT code				Phone		
Address ID		Mail Line1			Street Line1				Address type code		
		Mail Line2			Street Line2						
	City		State	Zip	City		State		Zip		
Location ID		Location Name			Location Scale			LS Code			
	State		County	MCD	HUC			State Basin			
	ST code		C code	MCD code	code			SB code			
	Latitude		Longitude		Location Determin Method			LDM Code			

Site ID	Site Type	Withdrawal Site Name	Conv ID	Action	Site ID	Site Type	Treatment Plant Site Name	Conv ID	Action	Site ID	Site Type	Regional Distribution System Site Name

Location

Site	LDM	Scale	State	CO	MCD	Latitude	Longitude

Site ID	Resource ID	Resource Name

Appendix 3_Form 6. NEWUDS input form for community-water systems.

Form 6. NEWUDS Input Form for Community-Water Systems

System ID ☐ System Name

Site ID	Site Type	Local Distribution System Site Name

Site	Year	Population Served

Conv ID	Action	Site ID	Site Type	User Site Name

(Wastewater)

Conv ID	Action	Site ID	Site Type	Local Collection or Return Site Name

Site ID	Resource ID	Resource Name

Appendix 3_Form 6. NEWUDS input form for community-water systems--Continued.

Form 7. Community-Wastewater Systems Worksheet

Community-wastewater system Name		Year	
Population Served		Per Capita	

From Users to Local/Regional Collection								
Local Collection System	**Releases by Domestic Users**	**Releases by Commercial Users**	**Releases by Industrial Users**	**Total Releases from all Users to Local System**	**Total Deliveries from Local System**	**Local Collection System Inflow & Infiltration**	**Total Deliveries from Regional System**	**Regional Collection System Inflow & Infiltration**

From Collection System to Returns								
Wastewater Treatment Plant	**Discharge Rate**	**Discharge Pipes**	**Discharge Rate**	**Resource**				

Appendix 3_Form 7. Worksheet for recording and estimating water use by community-wastewater systems.

Form 8. NEWUDS Input Form for Community-Wastewater Systems

System ID		System Name			System Type	pub wastewater	Use		Use code	61	
					ST code	2					
Owner ID		Owner Name			Owner Type				Contact Name		
					OT code				Phone		
Address ID		Mail Line1			Street Line1				Address type code		
		Mail Line2			Street Line2						
	City		State		Zip		City		State		Zip	
Location ID		Location Name					Location Scale			LS Code		
	State		County		MCD		HUC			State Basin		
	ST code		C code		MCD code		code			SB code		
	Latitude		Longitude				Location Determin Method			LDM Code		

Site ID	Site Type	User Site Name	Conv ID	Action

Site ID	Site Type	Local Collection Site Name	Conv ID	Action

Site ID	Site Type	Regional Collection System Site Name	Conv ID	Action

Location

Site	LDM	Scale	State	CO	MCD	Latitude	Longitude

Appendix 3_Form 8. NEWUDS input form for community-wastewater systems.

Form 8. NEWUDS Input Form for Community-Wastewater Systems

System ID System Name

Site ID	Site Type	Treatment Plant Site Name

Site	Year	Population Served

Conv ID	Action	Site ID	Site Type	Discharge Pipe Site Name

Site ID	Resource ID	Resource Name

(Freshwater)

Conv ID	Action	Site ID	Site Type	Local Distribution or Withdrawal Site Name

Site ID	Resource ID	Resource Name

Appendix 3_Form 8. NEWUDS input form for community-wastewater systems--Continued.

Form 9. NEWUDS Transaction/Rate Data Input Form

Staff		Staff ID					
Data Source		Owner		Owner ID		Data Source ID	
Rate Method			RM ID				
Rate Method			RM ID				
Rate Unit		Rate Unit ID					

Conveyance ID	Transaction ID	Time Interval ID	Begin Date	End Date	Rate ID	Staff ID	Data Source ID	Rate Method ID	Raw Rate Value	Rate Unit ID

Appendix 3_Form 9. NEWUDS input form for transaction/rate data.