Appendix 2 - NEWUDS Domain Table Listings by Subject Area

Site Domains

tdsSiteTypeCategory (n = 6)

SiteTypeCategory_ID	SiteTypeCategory
1	atmosphere
2	resource interactor
3	transfer
4	treatment
5	unaccounted-for water
6	user

tdsSiteTypeSubcategory (n = 12)

SiteTypeSubcategory_ID	SiteTypeCategory_ID	SiteTypeSubcategory
1	1	atmosphere
2	2	ground water
3	2	spring
4	2	surface water
5	3	collection
6	3	distribution
7	4	postuse
8	4	preuse
9	5	unaccounted-for water
10	6	aggregate user
11	6	single user
12	2	ground and surface water

tdsSiteType (n = 30)

SiteType_ID	SiteTypeSubcategory_ID	SiteType	SiteTypeMemo
1	2	ground-water withdrawal	Ground-water withdrawal from a general area, as of livestock withdrawals in a county
2	2	wellfield	A series of wells that are joined together by a manifold metering system and are all finished in the same aquifer
3	2	withdrawal well	A hole in the ground that has a diameter smaller than its depth from which water is withdrawn for use
4	2	recharge well	A hole in the ground that has a diameter smaller than its depth through which water is pumped back into the ground
5	2	ground-water return flow	Ground-water return flow to a general area, as for domestic return flow in a county.
6	3	spring	An opening in the earth from which water flows without pumping
7	4	surface-water withdrawal	Surface-water withdrawal from a general area, as of livestock withdrawals in a county
8	4	intake pipe	A pipe into a surface-water body through which water is removed from the surface-water body.

tdsSiteType (n = 30) —*Continued*

SiteType_ID	SiteTypeSubcategory_ID	SiteType	SiteTypeMemo
9	4	discharge pipe	A pipe into a surface-water body through which water is returned to the surface-water body.
10	4	surface-water return flow	Surface-water return flow to a general area, as for irrigation return flow in a county.
11	6	regional distribution system	A pipe or system of pipes conveying water to another regional distribution system or to more than one local distribution system.
12	6	local distribution system	A pipe or system of pipes conveying water to a single MCD or within a single MCD.
13	5	regional collection system	A pipe or system of pipes conveying wastewater from more than one MCD or from another regional collection system.
14	5	local collection system	A pipe or system of pipes conveying wastewater from a single MCD.
15	6	reclaimed wastewater system	A pipe or system of pipes conveying water from a wastewater treatment plant to a user.
16	6	recycled water system	A pipe or system of pipes conveying water from one user to another user, including itself.
17	8	potable treatment plant	A treatment plant that prepares water to drinking water standards.
18	8	industrial treatment plant	A treatment plant that prepares water to standards that are not necessarily drinking water standards--may be higher or lower
19	7	wastewater treatment plant	A treatment plant that prepares wastewater for discharge into the hydrologic environment.
20	11	single user	A user for which individual water supply, use, consumptive use, or return flow is measured or estimated.
21	10	aggregate user - County	A group of users, defined by a County boundary, for which supply, use, consumptive use, and return flow are collectively estimated.
22	1	Atmosphere (consumptive use)	Atmosphere (consumptive use) represents water that is evaporated or incorporated into products.
23	9	Unaccounted-for water	Unaccounted-for water represents the combination of leakage from distribution systems and public use of water, such as hydrant flushing, fire fighting, and street sweeping.
24	10	aggregate user - MCD	A group of users, defined by a Minor Civil Division boundary, for which supply, use, consumptive use, and return flow are collectively estimated.
25	10	aggregate user - HUC	A group of users, defined by a Hydrologic Unit boundary, for which supply, use, consumptive use, and return flow are collectively estimated.
26	10	aggregate user - State	A group of users, defined by a State boundary, for which supply, use, consumptive use, and return flow are collectively estimated.
27	4	Ranney collector	A large diameter well located near a river.
28	2	Land application	Disposal of wastewater over a field, as in irrigation.
29	2	Recharge basin	Return of freshwater or wastewater into a specially designed basin.
30	12	Inflow and Infiltration water	Inflow and Infiltration water represents the combination of inflow from surface water and infiltration from groundwater into a wastewater-collection system.

tdsUSGSUseType (n = 16)

USGSUseType_ID	USGSUseTypeCode	USGSUseType
0	--	Unknown
1	AS	Animal specialties
2	CO	Commercial
3	DO	Domestic
4	IN	Industrial
5	IR	Irrigation
6	LV	Livestock
7	MI	Mining
8	PB	Biomass power
9	PF	Fossil fuel power
10	PG	Geothermal power
11	PH	Hydroelectric power
12	PN	Nuclear power
13	PS	Public water supply
14	ST	Public wastewater disposal
15	XX	Non-use

tdsNEUseType (n = 86)

NEUseType_ID	USGSUseType_ID	NEUseTypeCode	NEUseType
0	0	--	Unknown
1	5	01	Agricultural crop
2	5	02	Rice
3	5	03	Corn
4	5	04	Cotton
5	5	05	Vegetables, melons
6	5	06	Fruits
7	5	07	Horticulture
8	5	08	Cranberries
9	6	09	Beef cattle
10	6	10	Hogs
11	6	11	Sheep, goats
12	6	12	Dairy cattle
13	6	13	Poultry
14	1	14	Fur-bearing animals
15	1	15	Horses
16	1	16	Animal specialties
17	1	17	Fish hatcheries
18	2	18	Services
19	7	19	Iron ore mining
20	7	20	Copper ore mining
21	7	21	Lead/zinc ores
22	7	22	Gold/silver ores
23	7	23	Ferroalloy ores
24	7	24	Metal ore, nec
25	7	25	Uranium
26	7	26	Coal mining
27	7	27	Oil and gas

tdsNEUseType (n = 86) —*Continued*

NEUseType_ID	USGSUseType_ID	NEUseTypeCode	NEUseType
28	7	28	Crushed stone
29	7	29	Sand and gravel
30	7	30	Clay
31	7	31	Chemical fertilizer
32	7	32	Nonmetal mining
33	4	33	Construction
34	4	34	Food
35	4	35	Tobacco
36	4	36	Textile mill
37	4	37	Finished apparel
38	4	38	Lumber and wood
39	4	39	Furniture and fixtures
40	4	40	Paper products
41	4	41	Printing, publishing
42	4	42	Chemical production
43	4	43	Petroleum refining
44	4	44	Rubber & misc prod
45	4	45	Leather products
46	4	46	Stone, clay, glass
47	4	47	Primary metal
48	4	48	Fabricated metal
49	4	49	Machinery & equip
50	4	50	Electronic equip
51	4	51	Transportation equip
52	4	52	Instruments
53	4	53	Misc manufacturing
54	2	54	Transportation, communication
55	9	55	Fossil fuel power
56	12	56	Nuclear power
57	10	57	Geothermal power
58	8	58	Biomass power
59	11	59	Hydroelectric power
60	13	60	Public water supply
61	14	61	Public wastewater disposal
62	2	62	Wholesale trade
63	2	63	Retail trade
64	2	64	Restaurants
65	2	65	Finance, insurance, real estate
66	2	66	Hotels and motels
67	3	67	Domestic
68	2	68	Camps
69	3	69	Trailer parks
70	2	70	Laundries
71	2	71	Race tracks
72	5	72	Golf course irrigation
73	2	73	Hospitals
74	2	74	Schools
75	2	75	Zoos
76	2	76	Government
77	13	77	Fire protection

tdsNEUseType (n = 86) —*Continued*

NEUseType_ID	USGSUseType_ID	NEUseTypeCode	NEUseType
78	15	78	Non-use
79	2	79	Commercial
80	4	80	Industrial
81	6	81	Stock
82	2	82	Ski area snowmaking
83	2	83	Bottled water
84	3	84	Group homes
85	13	85	Public Use

tdsSIC (sample from n = 1,005)

SIC_ID	SICCode	SICDescription
1	0111	Wheat
2	0112	Rice
3	0115	Corn
4	0116	Soybeans
5	0119	Cash Grains, NEC
6	0131	Cotton
7	0132	Tobacco
8	0133	Sugarcane and Sugar Beets
9	0134	Irish Potatoes
…		

tdsNAICS (sample from n = 1,824)

NAICS_ID	NAICSCode	NAICSDescription
1	11	Agriculture, Forestry, Fishing, and Hunting
2	111	Crop Production
3	1111	Oilseed and Grain Farming
4	11111	Soybean Farming
5	11112	Oilseed (except Soybean) Farming
6	11113	Dry Pea and Bean Farming
7	11114	Wheat Farming
8	11116	Rice Farming
9	11119	Other Grain Farming
…		

tdxSystem (example)

System_ID	SystemType_ID	SystemName	ParentSystem_ID	SystemMemo
1	4	Ben and Jerry's Ice Cream		
2	1	Suburban Water Co.		

tdxSystemType (currently n = 6)

SystemType_ID	SystemType	SystemTypeMemo
1	Public Supplier	
2	Public Wastewater System	
3	Energy Producer	
4	User	
5	Town	
6	County	

tdxSiteDetailCategory (currently n = 5)

SiteDetailCategory_ID	SiteDetailCategory
1	Count
2	Status
3	Description
4	Coefficient count
5	Percent

tdxSiteDetailLabel (sample from current n = 43)

SiteDetailLabelMemo field not shown

SiteDetailLabel_ID	SiteDetailCategory_ID	SiteDetailLabel	IsNumericDetail	SiteDetailUnit
1	1	Population served	Yes	People
2	1	Number of employees	Yes	People
3	1	Livestock	Yes	Animals
4	1	Acres irrigated-sprinkler	Yes	Acres
5	2	Activity Status	No	x
6	3	Design capacity	Yes	Mgal/d
7	3	Storage capacity	Yes	Mgal
8	3	Service connections	Yes	x
9	3	Well depth	Yes	Feet
10	3	Diameter	Yes	Inches
11	3	Pumping rate	Yes	Gal/minute
12	3	Pipe length	Yes	Feet
13	4	Aggregate (sand, gravel)	Yes	Tons
14	1	Energy	Yes	Kwh
15	1	Head	Yes	Feet
…				

Conveyance Domains

tdsConveyanceType (n = 7)

ConveyanceType_ID	ConveyanceType	ConveyanceTypeMemo
1	Pipe	long tube or hollow body for conducting water; closed to atmosphere and earth
2	Canal	artificial waterway for draining or irrigating land or for connection 2 rivers, includes ditches; open to atmosphere and earth
3	Aqueduct	large conduit for carrying water; closed to atmosphere, closed to earth
4	Conduit	artificial waterway for conveying water that is open to atmosphere and closed to earth
5	Mixed	connection between 2 Sites that combines 2 or more conveyance types--varies from being open or closed throughout its extent
6	Virtual	connection between 2 Sites
7	Truck	two Sites connected by truck (water delivered by truck)

tdxConveyanceDetailLabel (currently n = 5)

ConveyanceDetailLabel_ID	ConveyanceDetailLabel	ConveyanceDetailLabelMemo
1	Pipe size-inches	
2	Canal system length-miles	
3	Aqueduct system length-miles	
4	Conduit system length-miles	
5	Mixed system length-miles	

tdsConveyanceActionCategory (n = 25)

ConveyanceActionCategory_ID	ConveyanceActionCategory
1	collection collection
2	collection treatment
3	consumptive use
4	conveyance loss
5	distribution distribution
6	distribution user
7	distribution treatment
8	infiltration
9	inflow
10	leakage
11	reclaimed wastewater
12	recycled water
13	resource transfer
14	treatment collection
15	treatment distribution

tdsConveyanceActionCategory (n = 25) —*Continued*

ConveyanceActionCategory_ID	ConveyanceActionCategory
16	treatment resource
17	treatment user
18	user collection
19	user return
20	user treatment
21	withdrawal distribution
22	withdrawal treatment
23	withdrawal user
24	unaccounted for use
25	inflow and infiltration

tdsConveyanceAction (n = 172)

ConveyanceAction_ID	ConveyanceActionCategory_ID	ConveyanceActionPhrase	SiteTypeFromID	SiteTypeToID
1	13	From ground-water withdrawal To recharge well	1	4
2	13	From ground-water withdrawal To discharge pipe	1	9
3	13	From wellfield To recharge well	2	4
4	13	From wellfield To discharge pipe	2	9
5	13	From withdrawal well To recharge well	3	4
6	13	From withdrawal well To discharge pipe	3	9
7	13	From spring To recharge well	6	4
8	13	From spring To discharge pipe	6	9
9	13	From surface-water withdrawal To recharge well	7	4
10	13	From surface-water withdrawal To discharge pipe	7	9
11	13	From intake pipe To recharge well	8	4
12	13	From intake pipe To discharge pipe	8	9
13	22	From ground-water withdrawal To potable treatment plant	1	17
14	22	From wellfield To potable treatment plant	2	17
15	22	From withdrawal well To potable treatment plant	3	17
16	22	From spring To potable treatment plant	6	17
17	22	From surface-water withdrawal To potable treatment plant	7	17
18	22	From intake pipe To potable treatment plant	8	17
19	22	From ground-water withdrawal To industrial treatment plant	1	18

tdsConveyanceAction (n = 172) —*Continued*

ConveyanceAction_ID	ConveyanceActionCategory_ID	ConveyanceActionPhrase	SiteTypeFromID	SiteTypeToID
20	22	From wellfield To industrial treatment plant	2	18
21	22	From withdrawal well To industrial treatment plant	3	18
22	22	From spring To industrial treatment plant	6	18
23	22	From surface-water withdrawal To industrial treatment plant	7	18
24	22	From intake pipe To industrial treatment plant	8	18
25	21	From ground-water withdrawal To regional distribution system	1	11
26	21	From wellfield To regional distribution system	2	11
27	21	From withdrawal well To regional distribution system	3	11
28	21	From spring To regional distribution system	6	11
29	21	From surface-water withdrawal To regional distribution system	7	11
30	21	From intake pipe To regional distribution system	8	11
31	21	From ground-water withdrawal To local distribution system	1	12
32	21	From wellfield To local distribution system	2	12
33	21	From withdrawal well To local distribution system	3	12
34	21	From spring To local distribution system	6	12
35	21	From surface-water withdrawal To local distribution system	7	12
36	21	From intake pipe To local distribution system	8	12
37	23	From ground-water withdrawal To single user	1	20
38	23	From wellfield To single user	2	20
39	23	From withdrawal well To single user	3	20
40	23	From spring To single user	6	20
41	23	From surface-water withdrawal To single user	7	20
42	23	From intake pipe To single user	8	20
43	23	From ground-water withdrawal To aggregate user - County	1	21
44	23	From wellfield To aggregate user - County	2	21
45	23	From withdrawal well To aggregate user - County	3	21
46	23	From spring To aggregate user - County	6	21

tdsConveyanceAction (n = 172) —*Continued*

ConveyanceAction_ID	ConveyanceActionCategory_ID	ConveyanceActionPhrase	SiteTypeFromID	SiteTypeToID
47	23	From surface-water withdrawal To aggregate user - County	7	21
48	23	From intake pipe To aggregate user - County	8	21
49	15	From potable treatment plant To regional distribution system	17	11
50	15	From potable treatment plant To local distribution system	17	12
51	14	From potable treatment plant To local collection system	17	14
52	5	From regional distribution system To regional distribution system	11	11
53	5	From regional distribution system To local distribution system	11	12
54	6	From local distribution system To single user	12	20
55	7	From local distribution system To industrial treatment plant	12	18
56	17	From industrial treatment plant To single user	18	20
57	6	From local distribution system To aggregate user - County	12	21
58	18	From single user To local collection system	20	14
59	18	From aggregate user - County To local collection system	21	14
60	19	From single user To recharge well	20	4
61	19	From single user To ground-water return flow	20	5
62	19	From single user To discharge pipe	20	9
63	19	From single user To surface-water return flow	20	10
64	19	From aggregate user - County To recharge well	21	4
65	19	From aggregate user - County To ground-water return flow	21	5
66	19	From aggregate user - County To discharge pipe	21	9
67	19	From aggregate user - County To surface-water return flow	21	10
68	1	From local collection system To regional collection system	14	13
69	1	From regional collection system To regional collection system	13	13
70	2	From local collection system To wastewater treatment plant	14	19
71	2	From regional collection system To wastewater treatment plant	13	19
72	20	From single user To wastewater treatment plant	20	19

tdsConveyanceAction (n = 172) —*Continued*

ConveyanceAction_ID	ConveyanceActionCategory_ID	ConveyanceActionPhrase	SiteTypeFromID	SiteTypeToID
73	14	From industrial treatment plant To local collection system	18	14
74	11	From wastewater treatment plant To reclaimed wastewater system	19	15
75	11	From reclaimed wastewater system To single user	15	20
76	11	From reclaimed wastewater system To aggregate user - County	15	21
77	12	From single user To recycled water system	20	16
78	12	From recycled water system To single user	16	20
79	16	From industrial treatment plant To recharge well	18	4
80	16	From industrial treatment plant To ground-water return flow	18	5
81	16	From industrial treatment plant To discharge pipe	18	9
82	16	From industrial treatment plant To surface-water return flow	18	10
83	16	From wastewater treatment plant To recharge well	19	4
84	16	From wastewater treatment plant To ground-water return flow	19	5
85	16	From wastewater treatment plant To discharge pipe	19	9
86	16	From wastewater treatment plant To surface-water return flow	19	10
87	8	From ground-water withdrawal To local collection system	1	14
88	8	From ground-water withdrawal To regional collection system	1	13
89	9	From surface-water withdrawal To local collection system	7	14
90	9	From surface-water withdrawal To regional collection system	7	13
91	10	From local distribution system To ground-water return flow	12	5
92	10	From regional distribution system To ground-water return flow	11	5
93	10	From local collection system To ground-water return flow	14	5
94	10	From regional collection system To ground-water return flow	13	5
95	3	From single user To atmosphere	20	22
96	3	From aggregate user - County To atmosphere	21	22
97	4	From ground-water withdrawal To ground-water return flow	1	5

tdsConveyanceAction (n = 172) —*Continued*

ConveyanceAction_ID	ConveyanceActionCategory_ID	ConveyanceActionPhrase	SiteTypeFromID	SiteTypeToID
98	4	From surface-water withdrawal To ground-water return flow	7	5
99	19	From aggregate user - MCD To recharge well	24	4
100	19	From aggregate user - MCD To ground-water return flow	24	5
101	19	From aggregate user - MCD To discharge pipe	24	9
102	19	From aggregate user - MCD To surface-water return flow	24	10
103	18	From aggregate user - MCD To local collection system	24	14
104	3	From aggregate user - MCD To atmosphere	24	22
105	19	From aggregate user - HUC To recharge well	25	4
106	19	From aggregate user - HUC To ground-water return flow	25	5
107	19	From aggregate user - HUC To discharge pipe	25	9
108	19	From aggregate user - HUC To surface-water return flow	25	10
109	18	From aggregate user - HUC To local collection system	25	14
110	3	From aggregate user - HUC To atmosphere	25	22
111	19	From aggregate user - State To recharge well	26	4
112	19	From aggregate user - State To ground-water return flow	26	5
113	19	From aggregate user - State To discharge pipe	26	9
114	19	From aggregate user - State To surface-water return flow	26	10
115	18	From aggregate user - State To local collection system	26	14
116	3	From aggregate user - State To atmosphere	26	22
117	13	From Ranney collector To recharge well	27	4
118	13	From Ranney collector To discharge pipe	27	9
119	21	From Ranney collector To regional distribution system	27	11
120	21	From Ranney collector To local distribution system	27	12
121	22	From Ranney collector To potable treatment plant	27	17
122	22	From Ranney collector To industrial treatment plant	27	18
123	23	From Ranney collector To single user	27	20

tdsConveyanceAction (n = 172) —*Continued*

ConveyanceAction_ID	ConveyanceActionCategory_ID	ConveyanceActionPhrase	SiteTypeFromID	SiteTypeToID
124	23	From Ranney collector To aggregate user - County	27	21
125	23	From ground-water withdrawal To aggregate user - MCD	1	24
126	23	From wellfield To aggregate user - MCD	2	24
127	23	From withdrawal well To aggregate user - MCD	3	24
128	23	From spring To aggregate user - MCD	6	24
129	23	From surface-water withdrawal To aggregate user - MCD	7	24
130	23	From intake pipe To aggregate user - MCD	8	24
131	6	From local distribution system To aggregate user - MCD	12	24
132	11	From reclaimed wastewater system To aggregate user - MCD	15	24
133	23	From ground-water withdrawal To aggregate user - HUC	1	25
134	23	From wellfield To aggregate user - HUC	2	25
135	23	From withdrawal well To aggregate user - HUC	3	25
136	23	From spring To aggregate user - HUC	6	25
137	23	From surface-water withdrawal To aggregate user - HUC	7	25
138	23	From intake pipe To aggregate user - HUC	8	25
139	6	From local distribution system To aggregate user - HUC	12	25
140	11	From reclaimed wastewater system To aggregate user - HUC	15	25
141	23	From ground-water withdrawal To aggregate user - State	1	26
142	23	From wellfield To aggregate user - State	2	26
143	23	From withdrawal well To aggregate user - State	3	26
144	23	From spring To aggregate user - State	6	26
145	23	From surface-water withdrawal To aggregate user - State	7	26
146	23	From intake pipe To aggregate user - State	8	26
147	6	From local distribution system To aggregate user - State	12	26

tdsConveyanceAction (n = 172) —*Continued*

ConveyanceAction_ID	ConveyanceActionCategory_ID	ConveyanceActionPhrase	SiteTypeFromID	SiteTypeToID
148	11	From reclaimed wastewater system To aggregate user - State	15	26
149	24	From regional distribution system To unaccounted for use	11	23
150	24	From local distribution system To unaccounted for use	12	23
151	25	From inflow and infiltration To regional collection system	30	13
152	25	From inflow and infiltration To local collection system	30	14
153	11	From industrial treatment plant To Land application	18	28
154	11	From wastewater treatment plant To Land application	19	28
155	11	From single user To Land application	20	28
156	11	From aggregate user - County To Land application	21	28
157	11	From aggregate user - MCD To Land application	24	28
158	11	From aggregate user - HUC To Land application	25	28
159	11	From aggregate user - State To Land application	26	28
160	13	From ground-water withdrawal To Recharge basin	1	29
161	13	From wellfield To Recharge basin	2	29
162	13	From withdrawal well To Recharge basin	3	29
163	13	From spring To Recharge basin	6	29
164	13	From surface-water withdrawal To Recharge basin	7	29
165	13	From intake pipe To Recharge basin	8	29
166	13	From industrial treatment plant To Recharge basin	18	29
167	16	From wastewater treatment plant To Recharge basin	19	29
168	16	From single user To Recharge basin	20	29
169	19	From aggregate user - County To Recharge basin	21	29
170	19	From aggregate user - MCD To Recharge basin	24	29
171	19	From aggregate user - HUC To Recharge basin	25	29
172	19	From aggregate user - State To Recharge basin	26	29

Transaction/Rate Domains

tdsRateUnitDecimal (n = 7)

RateUnitDecimal_ID	DecimalUnit	ConversionToMillion
0		0.000001
1	ten	0.00001
2	hundred	0.0001
3	thousand	0.001
4	ten thousand	0.01
5	hundred thousand	0.1
6	million	1

tdsRateUnitVolume (n = 6)

RateUnitVolume_ID	VolumeUnit	ConversionToGallon
1	gallons	1
2	cubic feet	7.48
3	acre-feet	325851
4	acre-inch	27154
5	cubic inch	0.00433
6	liter	0.2642

tdsRateUnitTime (n = 6)

RateUnitTime_ID	TimeUnit	ConversionToDay
1	Second	86400
2	Minute	1440
3	Hour	24
4	Day	1
5	Month	0.033
6	Year	0.0027

tdxRateUnit (currently n = 20)

RateUnitMemo field not shown

RateUnit_ID	RateUnitAbbrv	RateUnitPhrase	MGDConversion	RateUnitDecimal_ID	RateUnitVolume_ID	RateUnitTime_ID
1	Mgal/d	million gallons per day	1	6	1	4
2	Mgal/m	million gallons per month	0.033	6	1	5
3	Mgal/yr	million gallons per year	0.0027	6	1	6
4	cf/s	cubic feet per second	0.646272	0	2	1
5	Tcf/d	thousand cubic feet per day	0.00748	3	2	4
6	Tcf/m	thousand cubic feet per month	0.00024684	3	2	5
7	Tcf/yr	thousand cubic feet per year	0.000020196	3	2	6
8	acre-feet/d	acre-feet per day	0.325851	0	3	4
9	acre-feet/m	acre-feet per month	0.010753083	0	3	5
10	acre-feet/yr	acre-feet per year	0.0008797977	0	3	6
11	Tacre-feet/yr	thousand acre-feet per year	0.8797977	3	3	6
12	gal/d	gallons per day	0.000001	0	1	4
13	gal/m	gallons per month	0.000000033	0	1	5
14	gal/yr	gallons per year	0.0000000027	0	1	6
15	Tgal/d	thousand gallons per day	0.001	3	1	4
16	Tgal/m	thousand gallons per month	0.000033	3	1	5
17	Tgal/yr	thousand gallons per year	0.0000027	3	1	6
18	inch/acre/yr	acre-inch per year	0.0000733158	0	4	6
19	cinch/yr	cubic inch per year	1.1691E-11	0	5	6
20	cf/d	cubic feet per day	0.00000748	0	2	4

tdsTimeInterval (n = 11)

TimeInterval_ID	TimeInterval
1	5-year period
2	Year
3	Season
4	Month
5	Week
6	Day
7	Multi-day
8	Indeterminate
9	Hour
10	Minute
11	Second

tdxStaff (example)

Staff_ID	StaffInitials	StaffName	StaffAffiliation	StaffMemo
1	TF	Frick, Timothy	CT	
2	MH	Horn, Marilee	NH	
3	LM	Medalie, Laura	VT	
4	LB	Bratton, Lisa	MA/RI	
5	PL	Lombard, Pamela	ME	

tdxRateDetailLabel (example)

RateDetailLabel_ID	RateDetailLabel	RateDetailLabelMemo
1	Accuracy	

tdxRateMethodCategory (currently n = 11)

RateMethodCategory_ID	RateMethodCategory
1	Metered
2	Field estimate
3	Coefficient estimate
4	Reported
5	Intuition
6	Percent of metered
7	Percent of derived value
8	Difference between metered values
9	Difference between derived values
10	Permit
11	Volumetric

tdxRateMethod (currently n = 42)

RateMethodMemo field not shown

RateMethod_ID	RateMethodCategory_ID	RateMethod
1	1	Calibrated cumulative meter
2	1	Uncalibrated cumulative meter
3	1	Calibrated instantaneous meter with time meter
4	1	Calibrated instantaneous meter with time estimate
5	1	Uncalibrated instantaneous meter with time meter
6	1	Uncalibrated instantaneous meter with time estimate
7	2	Estimated pumping rate with time meter
8	2	Estimated pumping rate with time estimate
9	3	IWR-MAIN coefficient with Dun-Bradstreet values
10	3	IWR-MAIN coefficient with Census Bureau values
11	3	Local coefficient with Dun-Bradstreet values
12	3	Local coefficient with Census Bureau values
13	3	Power coefficient with power-consumption data
14	3	Agriculture coefficient with landsat data

RateMethod_ID	RateMethodCategory_ID	RateMethod
15	3	Livestock coefficient with Agriculture Census data
16	3	Agriculture coefficient with Agriculture Census data
17	3	NWUIP coefficient with Census data
18	4	Unknown method
19	5	Unknown source, unknown method
20	7	IWR-MAIN coefficient applied to Dun-Bradstreet values to determine water-use and use Census Bureau data to proportion public supply/disposal from self supply/disposal
21	6	Metered withdrawal data multiplied by consumptive-use percentage
22	10	Permitted volume
23	6	Metered withdrawal data multiplied by local distribution system percentage
24	6	Metered delivery data multiplied by consumptive-use percentage
25	7	Aggregated data multiplied by land- and employee-based percentage
26	7	Water-use value multiplied by consumptive-use percentage
27	2	Stream gage-USGS
28	2	Stream gage-other than USGS
29	11	Known volume, such as truck times the number of trucks over a specified time period
30	7	Public supply withdrawals multiplied by unaccounted-for use percentage
31	8	Difference between metered withdrawals and billed consumption
32	6	Metered wastewater values multiplied by population-based percentage
33	7	Percent Total aggregate water use multiplied by percent of wells in different aquifers for MCD from VTDEC, WSD well inventory database
34	7	Difference between Census population and population on public supply
35	9	Difference between registered withdrawals and public-supply deliveries, factoring in all connected MCDs
36	7	Rate method #20 times percentage: 95% bedrock and 5%glacial deposits aquifer
37	9	Average irrigation needs less actual precipitation; gw/sw split by guestimate
38	3	Livestock coefficient with Agriculture Census data plus count of dairy cows (from VTDOA) times water-use coefficient
39	1	Metered data; unknown type
40	9	Trying to correct an error, placehold rate method
41	3	SDWIS population times 70 gal/person/day, divided among wells as appropriate, 85% return flow
42	2	Estimated based on reported other months

Location Domains

tdsLocation Scale (n=8)

LocationScale_ID	LocationScale
0	Unknown Scale
1	Point
2	MCD/Town
3	County
4	State
5	HUC/Watershed
6	Irregular Area
7	Undefined Area

tdxLocationDetMethod (currently n=10)

LocationDetMethod_ID	LocationDetMethod
1	Unknown
2	Centroid of MCD
3	Centroid of County
4	GPS field
5	Topographic map
6	Surveyed in
7	Atlas software
8	Dun & Bradstreet Info Service
9	Centroid of HUC/Watershed
10	EPA-SDWIS database

tdsHUC (sample from n = 61 for New England)

HUC_ID	HUC	HUCName
1	01010001	Upper St. John
2	01010002	Allagash
3	01010003	Fish
4	01010004	Aroostook
5	01010005	Meduxnekeag
…		

tdsStateBasin (sample)

StateBasin_ID	StateBasinCode	StateMajorBasin	StateBasin
1	B14	Massachusetts-Rhode Island Coastal	Charles

To be customized for use in individual States only (domain may vary between states)

tdsState (n = 8 for New England)

State_ID	CountryAbbrv	StateCode	StateAbbrv	StateName	StateLatitude	StateLongitude
0	USA	00	XX	No State Identified		
1	USA	09	CT	Connecticut		
2	USA	23	ME	Maine		
3	USA	25	MA	Massachusetts		
4	USA	33	NH	New Hampshire		
5	USA	36	NY	New York		
6	USA	44	RI	Rhode Island		
7	USA	50	VT	Vermont		

tdsCounty (sample from n = 130 for New England)

County_ID	State_ID	StateCountyCode	CountyCode	CountyName	CountyShortName	CountyLatitude	CountyLongitude
304	1	09001	001	Fairfield County	Fairfield	412254	-0733710
305	1	09003	003	Hartford County	Hartford	418071	-0727349
306	1	09005	005	Litchfield County	Litchfield	417947	-0732445
307	1	09007	007	Middlesex County	Middlesex	414351	-0725238
308	1	09009	009	New Haven County	New Haven	413489	-0729003
…							

tdsMCD (sample from n = 2,617 for New England)

MCD_ID	County_ID	StateMCDCode	MCDCode	MCDType	MCDName	MCDShortName	MCDLatitude	MCDLongitude
1	304	0904720	04720	town	Bethel town	Bethel	413742	-0733954
2	304	0908070	08070	town	Bridgeport town	Bridgeport	411863	-0731962
3	304	0908980	08980	town	Brookfield town	Brookfield	414684	-0733924
4	304	0918500	18500	town	Danbury town	Danbury	414021	-0734715
5	304	0918850	18850	town	Darien town	Darien	410511	-0734797
…								

Resource Domains

tdsResourceType (n = 7)

ResourceType_ID	GWorSW	Salinity	ResourceType
1	GW	FR	Ground water, fresh
2	GW	BR	Ground water, brackish
3	GW	SA	Ground water, saline
4	SW	FR	Surface water, fresh
5	SW	BR	Surface water, brackish
6	SW	SA	Surface water, saline
7	--	--	Unknown water resource

tdsWaterBodyType (n = 10)

WaterBodyType_ID	ResourceType_ID	WaterBodyType
1	4	River/Stream
2	4	Lake/Pond
3	4	Reservoir
4	6	Estuary - saline
5	6	Ocean
6	1	Aquifer - freshwater
7	4	Spring
8	6	Bay
9	7	Unknown surface water
10	5	Estuary - brackish

tdxResourceDetailLabel (currently n = 5)

ResourceDetailLabel_ID	ResourceDetailLabel	ResourceDetailLabelMemo
1	Tributary to	
2	Surface area-acres	
3	Dam name	
4	August median flow	
5	Fishery	

Miscellaneous Domains

tdsAddress Type (n = 3)

AddressType_ID	AddressType
1	Street & Mailing
2	Street
3	Mailing

tdsOwnerType (n = 6)

OwnerType_ID	OwnerType	OwnerTypeMemo
0	None	No actual owner
1	Private	Privately owned
2	Municipal	Owned/operated by the Municipal government
3	County	Owned/operated by the County government
4	State	Owned/operated by the State government
5	Federal	Owned/operated by the Federal government

tdxDataSource (examples)

DataSource_ID	Owner_ID	DataSource	DataSourceMemo
1	28	1994 Vermont Manufacturers Directory	
2	29	Dun & Bradstreet Information Service	

tdxAliasLabel (example)

AliasLabel_ID	DataSource_ID	AliasSource	AliasLabel	AliasLabelMemo
1	6	PCS	NPDES Permit #	