



OGMCOAL DNR &lt;ogmcoal@utah.gov&gt;

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**Fwd: DOGM sites on 303(d) list**

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**Ken Hoffman** <kenhoffman@utah.gov>  
To: OGMCOAL DNR <OGMCoal@utah.gov>  
Cc: Steve Christensen <stevechristensen@utah.gov>

Tue, Feb 4, 2014 at 2:23 PM

----- Forwarded message -----

From: **Amy Dickey** <adickey@utah.gov>  
Date: Mon, Feb 3, 2014 at 2:04 PM  
Subject: DOGM sites on 303(d) list  
To: Ken Hoffman <kenhoffman@utah.gov>  
Cc: Carl Adams <carladams@utah.gov>, James Harris <jamesharris@utah.gov>, Emilie Flemer <eflemer@utah.gov>

Hi Ken,

I appreciate you taking a quick look at these locations. Again...I just want to make sure we are confident that the sites going on the Utah 303(d) list actually belong there.

I have attached a summary sheet with DOGM locations that have been assessed as impaired, as well as a crosswalk indicating what the column headers mean. So far I have only reviewed the lists for temperature, dissolved oxygen and pH, so that's all I've included here. Emilie is working on assessments for water chemistry parameters, so I may have a few more locations to send your way when I get that list.

Please let me know if you have any questions.

Thanks for the help,

Amy

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Amy Dickey  
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**2 attachments**

**DOGM sites for 303d list 020414.xlsx**  
21K

 **Crosswalk for Assessment Summary Files.docx**  
16K

Crosswalk for Assessment Summary Files

Field Heading	Description
5yr_vs_10yr_Comment	Outcome of assessment and the extent of data used for the assessment. For sites with insufficient data 5 and 10 year assessments are provided for comparison
Yr_assess	Indicates date range used for the assessment.
Summary_Comment	Summary only for NONREJECTED data used in analysis. Refer to corresponding data report for all data considered in IR analysis.
Old_DWQ_AUID	Actually refers to the Assessment Unit where the sampling location is located
MS_AUASSESSID	Monitoring Location ID number.
MS_AUName	Monitoring Location Site Name
R317_Parameter_Evaluated	Name of parameter
AUSampleCount	Sample count for the 5 or 10 year period
Flagged_data	Indicates whether there are flags on the original data. Does not indicate that the flags resulted in rejection of the data. Please refer to the source data file for a summary of the flags for the site of interest
IRAnalysisAction	Decision of the assessment. Note: 3A (insufficient data) indicates that some of the data exceeded the criterion and Not assessed (evaluate other evidence) indicates that non of the samples exceeded the criterion yet data was also insufficient.
IRAnalysisComment	Indicates whether the minimum conditions of the exceedance report were met (n=>10, =>10% exceedance of criterion)
AU_MSUSES	Lists the uses assessed in the analysis
USE_Criteria	Lists the applicable criteria
Use_Criteria_unit	Unit of the criterion
exceedence_result	Summary statistics
MinOfIR_Value	Summary statistics
MaxOfIR_Value	Summary statistics
AvgOfIR_Value	Summary statistics
StDevOfIR_Value	Summary statistics
IR_Unit	Unit of the parameter being assessed
MinOfActivity Start Date	Temporal extent of the dataset
MaxOfActivity Start Date	Temporal extent of the dataset
Monitoring Location Type	Waterbody type
MS_WMU	Watershed Management Unit
Location_Latitude	Geo Info
Location_Longitude	Geo Info
Summary_Comment_5yr	Same as above but indicates the assessment results for the 5 year assessment window in cases where data was insufficient to make a determination and additional data was brought in from the 10 year window and included in the fields above
Yr_assess_5yr	See above

Old_DWQ_AUID_5yr	See above
MS_AUASSESSID_5yr	See above
MS_AUName_5yr	See above
R317_Parameter_Evaluated_5yr	See above
AUSampleCount_5yr	See above
Flaged_data_5yr	See above
IRAnalysisAction_5yr	See above
IRAnalysisComment_5yr	See above
AU_MSUSES_5yr	See above
USE_Criteria_5yr	See above
Use_Criteria_unit_5yr	See above
exceedence_result_5yr	See above
MinOfIR_Value_5yr	See above
MaxOfIR_Value_5yr	See above
AvgOfIR_Value_5yr	See above
StDevOfIR_Value_5yr	See above
IR_Unit_5yr	See above
MinOfActivity Start Date_5yr	See above
MaxOfActivity Start Date_5yr	See above
Monitoring Location Type_5yr	See above
MS_WMU_5yr	See above
Location_Latitude_5yr	See above
Location Longitude_5yr	See above

## DISSOLVED OXYGEN

5yr_vs_10yYr_assess	Summary_ Old_DWQ_	MS_AUASSESSID
5yr Assessr 5YR	Summary c UT140700C	703
5yr Assessr 5YR	Summary c UT140700C	706
5yr Assessr 10YR	Summary c UT140700C	749
5yr Assessr 5YR	Summary c UT140600C	848
5yr Assessr 5YR	Summary c UT140600C	849
5yr Assessr 5YR	Summary c UT140600C	850
5yr Assessr 10YR	Summary c UT140600C	851
5yr Assessr 5YR	Summary c UT140600C	1831
5yr Assessr 10YR	Summary c UT140600C	1842
5yr Assessr 10YR	Summary c UT140600C	1843
5yr Assessr 10YR	Summary c UT140600C	1851
5yr Assessr 5YR	Summary c UT140600C	1868
5yr Assessr 10YR	Summary c UT140600C	1905

## pH

5yr_vs_10yYr_assess	Summary_ Old_DWQ_	MS_AUASSESSID
5yr Assessr 5YR	Summary c UT140600C	320
5yr Assessr 10YR	Summary c UT140600C	335
5yr Assessr 10YR	Summary c UT140600C	622
5yr Assessr 10YR	Summary c UT140600C	1060
5yr Assessr 10YR	Summary c UT140600C	1626
5yr Assessr 5YR	Summary c UT140600C	1642
5yr Assessr 5YR	Summary c UT140600C	1643
5yr Assessr 10YR	Summary c UT140600C	1648
5yr Assessr 10YR	Summary c UT140600C	1677
5yr Assessr 10YR	Summary c UT140600C	1905

## TEMPERATURE

5yr_vs_10yYr_assess	Summary_ Old_DWQ_	MS_AUASSESSID
5yr Assessr 5YR	Summary c UT140700C	777
5yr Assessr 10YR	Summary c UT140600C	1060
5yr Assessr 10YR	Summary c UT140600C	1137
5yr Assessr 10YR	Summary c UT140600C	1843
5yr Assessr 10YR	Summary c UT140600C	1905

MS\_AUName

SUFCO - 46 - (SUFCO-046) CONVULSION CANYON AB PUMP HO  
SUFCO - 90 - (SUFCO-090) BOX CANYON AT PERMIT BOUNDAR  
SUFCO - PINES 106 - Upper East Fork Box Canyon  
HORIZON - SS-7 - BEAVER CK AB FUTURE MINING  
HORIZON - SS-8 - BEAVER CK BL FUTURE MINING  
HORIZON - SS-10 - JUMP CK TRIB BL FUTURE MINING  
HORIZON - SS-11 - SAND GULCH BEAVER CK TRIB BL FUTURE MIN  
BEAR CANYON - BC-2 - Lower Bear Ck  
BEAR CANYON - BC-3 - Lower Right Fork Bear Creek  
BEAR CANYON - MH-1 - (FBC-1) Lower McCadden Hollow Creek  
BEAR CANYON - FC-1 - Lower Left Fork of Fish Creek  
BEAR CANYON - CK-2 - Lower Cedar Creek  
BEAR CANYON - MH-2 - Upper McCadden Hollow Creek

MS\_AUName

COTTONWOOD/WILBERG - CCC1 USGS FLUME - Cottonwood Cyn Creek @ USGS Flume  
COTTONWOOD/WILBERG - GWR03 - Grimes Wash BL mine (runoff)  
HIAWATHA COMPLEX - ST-4B - S FK MILLER CK-BL S FK SED POND  
TRAIL MOUNTAIN #9 - SW-3 - Cottonwood Ck BL mine facilities  
DEER CREEK - RCF-1 - Rilda CYN-R Fk; Flume 1  
DEER CREEK - HCC01 - HUNTINGTON CYN CK AB DEER CRK. @ BRIDGE  
DEER CREEK - HCC02 - HUNTINGTON CYN CK BL DEER CREEK  
DEER CREEK - RCF2 - AB NEWUA SPRINGS  
DEER CREEK - MHC 01 - MEETING HOUSE CYN 1  
BEAR CANYON - MH-2 - Upper McCadden Hollow Creek

MS\_AUName

SUFCO - 41 - (SUFCO-041) QUITCHUPAH CK AB CONFL N FK  
TRAIL MOUNTAIN #9 - SW-3 - Cottonwood Ck BL mine facilities  
WEST RIDGE MINE - ST-9 - Grassy Trail abv Grassy Reservoir inlet  
BEAR CANYON - MH-1 - (FBC-1) Lower McCadden Hollow Creek  
BEAR CANYON - MH-2 - Upper McCadden Hollow Creek

R317_Parameter_Evaluated	AUSampleCount	Flaged_dat	IRAnalysisA	IRAnalysisC	AU_MSUSE	USE_Criter
Dissolved Oxygen ,chronic	15	Yes	AU Not Me	>9 samples	3A///	6.5///
Dissolved Oxygen ,chronic	15	Yes	AU Not Me	>9 samples	3A///	6.5///
Dissolved Oxygen ,chronic	16	Yes	AU Not Me	>9 samples	3A///	6.5///
Dissolved Oxygen ,chronic	14	Yes	AU Not Me	>9 samples	3A///	6.5///
Dissolved Oxygen ,chronic	13	Yes	AU Not Me	>9 samples	3A///	6.5///
Dissolved Oxygen ,chronic	14	Yes	AU Not Me	>9 samples	3A///	6.5///
Dissolved Oxygen ,chronic	20	Yes	AU Not Me	>9 samples	3A///	6.5///
Dissolved Oxygen ,chronic	22	Yes	AU Not Me	>9 samples	3A///	6.5///
Dissolved Oxygen ,chronic	23	Yes	AU Not Me	>9 samples	3A///	6.5///
Dissolved Oxygen ,chronic	13	Yes	AU Not Me	>9 samples	3A///	6.5///
Dissolved Oxygen ,chronic	26	Yes	AU Not Me	>9 samples	3A///	6.5///
Dissolved Oxygen ,chronic	21	Yes	AU Not Me	>9 samples	3A///	6.5///
Dissolved Oxygen ,chronic	11	Yes	AU Not Me	>9 samples	3A///	6.5///

R317_Parameter_Evaluated	AUSampleCount	Flaged_dat	IRAnalysisA	Confirmati	TMDL_Con	IRAnalysisC
pH	12	Yes	AU Not Meeting	Designated Use	>9 samples	
pH	21	Yes	AU Not Meeting	Designated Use	>9 samples	
pH	12	Yes	AU Not Me	No min 6.3, m	>9 samples	
pH	13	Yes	AU Not Meeting	Designated Use	>9 samples	
pH	19	Yes	AU Not Meeting	Designated Use	>9 samples	
pH	20	Yes	AU Not Meeting	Designated Use	>9 samples	
pH	20	Yes	AU Not Meeting	Designated Use	>9 samples	
pH	11	Yes	AU Not Meeting	Designated Use	>9 samples	
pH	10	Yes	AU Not Meeting	Designated Use	>9 samples	
pH	11	Yes	AU Not Meeting	Designated Use	>9 samples	

R317_Parameter_Evaluated	AUSampleCount	Flaged_dat	IRAnalysisA	Confirmati	TMDL_Con	IRAnalysisC
Water Temperature ,max	15	Yes	AU Not Meeting	Designated Use	>9 samples	
Water Temperature ,max	13	Yes	AU Not Meeting	Designated Use	>9 samples	
Water Temperature ,max	24	Yes	AU Not Meeting	Designated Use	>9 samples	
Water Temperature ,max	15	Yes	AU Not Meeting	Designated Use	>9 samples	
Water Temperature ,max	11	Yes	AU Not Meeting	Designated Use	>9 samples	

Use_Criteria	exceedenc	MinOfIR_V	MaxOfIR_v	AvgOfIR_V	StDevOfIR_IR_Unit	MinOfActiv	MaxOfActiv	Monitoring
mg/l	exceeded/,	6.1	10.6	7.417333	1.318351 mg/l	#####	#####	River/Strea
mg/l	exceeded/,	5.07	8.4	6.957333	0.80242 mg/l	#####	#####	River/Strea
mg/l	exceeded/,	3.61	8.75	6.566875	1.395186 mg/l	6/6/2003	#####	River/Strea
mg/l	exceeded/,	4	8	5.714286	1.204388 mg/l	#####	#####	River/Strea
mg/l	exceeded/,	4	6	5.384615	0.650444 mg/l	#####	#####	River/Strea
mg/l	exceeded/,	5	8	5.785714	0.801784 mg/l	#####	#####	River/Strea
mg/l	exceeded/,	4	8	5.6	1.095445 mg/l	#####	#####	River/Strea
mg/l	exceeded/,	0	54.4	9.789091	10.24363 mg/l	#####	#####	River/Strea
mg/l	exceeded/,	6	11.27	7.919565	1.46583 mg/l	6/8/2004	#####	River/Strea
mg/l	exceeded/,	0	18	7.230769	4.349595 mg/l	#####	#####	River/Strea
mg/l	exceeded/,	0	21.3	7.688462	3.557002 mg/l	5/8/2003	#####	River/Strea
mg/l	exceeded/,	0	11.51	7.568571	2.153047 mg/l	#####	#####	River/Strea
mg/l	exceeded/,	4.4	16	7.572727	3.033839 mg/l	#####	#####	River/Strea

AU_MSUSE	USE_Criter	Use_Criteri	exceedenc	MinOfIR_V	MaxOfIR_v	AvgOfIR_V	StDevOfIR_IR_Unit	MinOfActiv
1C//2B/3A,6.5-9 / - / 6	None	exceeded/,	5.52	9.36	8.565833	1.038237	None	#####
//2B///3C/, - / - / 6.5-9	None	//exceedec	6.25	9.39	8.37619	0.705163	None	#####
//2B///3C/, - / - / 6.5-9	None	//exceedec	6.3	589	56.5225	167.6884	None	#####
1C//2B/3A,6.5-9 / - / 6	None	exceeded/,	7.33	9.55	8.459231	0.574332	None	#####
1C//2B/3A,6.5-9 / - / 6	None	exceeded/,	7.91	9.68	8.714737	0.40229	None	#####
1C//2B/3A,6.5-9 / - / 6	None	exceeded/,	7.89	9.35	8.7205	0.368217	None	#####
1C//2B/3A,6.5-9 / - / 6	None	exceeded/,	8.2	9.43	8.6885	0.369527	None	#####
1C//2B/3A,6.5-9 / - / 6	None	exceeded/,	8.24	9.74	8.85	0.449555	None	#####
1C//2B/3A,6.5-9 / - / 6	None	exceeded/,	7.94	9.32	8.731	0.423516	None	6/3/2004
1C//2B/3A,6.5-9 / - / 6	None	exceeded/,	7.5	9.1	8.309091	0.492858	None	#####

AU_MSUSE	USE_Criter	Use_Criteri	exceedenc	MinOfIR_V	MaxOfIR_v	AvgOfIR_V	StDevOfIR_IR_Unit	MinOfActiv	
3A//	20//	deg C	exceeded/,	0.2	29.3	14.46	10.40088	deg C	#####
3A//	20//	deg C	exceeded/,	1	26.5	13.96154	7.019204	deg C	#####
3A//	20//	deg C	exceeded/,	2	24	12.70833	6.732201	deg C	#####
3A//	20//	deg C	exceeded/,	1.9	23.9	14.97778	6.23353	deg C	6/4/2003
3A//	20//	deg C	exceeded/,	4.7	25.2	16.88182	6.497048	deg C	#####



MS_WMU	Location_L	Location_L	Summary_	Yr_assess_	Old_DWQ_	MS_AUASS	MS_AUNar	R317_Para	AUSampleC
Colorado R	38.90722	-111.417							
Colorado R	38.99667	-111.351							
Colorado R	39.00251	-111.329	Summary c 5YR		UT140700	( 749		SUFCO - PII Dissolved C	1
Colorado R	39.70224	-111.076							
Colorado R	39.71083	-111.052							
Colorado R	39.72135	-111.068							
Colorado R	39.71361	-111.056	Summary c 5YR		UT140600	( 851		HORIZON - Dissolved C	8
Colorado R	39.40222	-111.101							
Colorado R	39.40944	-111.092	Summary c 5YR		UT140600	( 1842		BEAR CANY Dissolved C	8
Colorado R	39.43611	-111.113	Summary c 5YR		UT140600	( 1843		BEAR CANY Dissolved C	2
Colorado R	39.39972	-111.055	Summary c 5YR		UT140600	( 1851		BEAR CANY Dissolved C	9
Colorado R	39.43917	-111.017							
Colorado R	39.44639	-111.093	Summary c 5YR		UT140600	( 1905		BEAR CANY Dissolved C	7

MaxOfActi	Monitoring	MS_WMU	Location_L	Location_L	Summary_	Yr_assess_	Old_DWQ_	MS_AUASS	MS_AUNar
9/5/2012	River/Strea	Colorado R	39.29694	-111.181					
#####	River/Strea	Colorado R	39.3175	-111.121	Summary c 5YR		UT140600	( 335	COTTONW/
#####	River/Strea	Colorado R	39.47861	-111.04	Summary c 5YR		UT140600	( 622	HIAWATHA
9/5/2012	River/Strea	Colorado R	39.29417	-111.18	Summary c 5YR		UT140600	( 1060	TRAIL MOL
#####	River/Strea	Colorado R	39.40833	-111.17	Summary c 5YR		UT140600	( 1626	DEER CREE
#####	River/Strea	Colorado R	39.38528	-111.084					
#####	River/Strea	Colorado R	39.38194	-111.076					
#####	River/Strea	Colorado R	39.4025	-111.152	Summary c 5YR		UT140600	( 1648	DEER CREE
9/7/2011	River/Strea	Colorado R	39.38278	-111.11	Summary c 5YR		UT140600	( 1677	DEER CREE
#####	River/Strea	Colorado R	39.44639	-111.093	Summary c 5YR		UT140600	( 1905	BEAR CANY

MaxOfActi	Monitoring	MS_WMU	Location_L	Location_L	Summary_	Yr_assess_	Old_DWQ_	MS_AUASS	MS_AUNar
#####	River/Strea	Colorado R	38.89861	-111.356					
9/5/2012	River/Strea	Colorado R	39.29417	-111.18	Summary c 5YR		UT140600	( 1060	TRAIL MOL
#####	River/Strea	Colorado R	39.62766	-110.398	Summary c 5YR		UT140600	( 1137	WEST RIDG
#####	River/Strea	Colorado R	39.43611	-111.113	Summary c 5YR		UT140600	( 1843	BEAR CANY
#####	River/Strea	Colorado R	39.44639	-111.093	Summary c 5YR		UT140600	( 1905	BEAR CANY

Flaged\_dat IRAnalysisA IRAnalysisC AU\_MSUSE USE\_Criter Use\_Criteri exceedenci MinOfIR\_V MaxOfIR\_v AvgOfIR\_V:

Yes	3A (insuffic Less than 1 3A///	6.5///	mg/l	exceeded/,	6.34	6.34	6.34
Yes	3A (insuffic Less than 1 3A///	6.5///	mg/l	exceeded/,	5	8	6.125
Yes	3A (insuffic Less than 1 3A///	6.5///	mg/l	exceeded/,	6.3	11.27	8.53125
Yes	3A (insuffic Less than 1 3A///	6.5///	mg/l	exceeded/,	0	7.2	3.6
Yes	Not Assess Less than 1 3A///	6.5///	mg/l	did not exc	6.8	9.5	8.277778
Yes	3A (insuffic Less than 1 3A///	6.5///	mg/l	exceeded/,	4.4	8.2	6.885714

R317\_Para AUSample( Flaged\_dat IRAnalysisA IRAnalysisC AU\_MSUSE USE\_Criter Use\_Criteri exceedenci MinOfIR\_V

pH	5 Yes	3A (insuffic Less than 1 //2B///3C/, - / - / 6.5-9 None	//exceedec	6.25
pH	7 Yes	3A (insuffic Less than 1 //2B///3C/, - / - / 6.5-9 None	//exceedec	6.3
pH	7 Yes	3A (insuffic Less than 1 1C//2B/3A, 6.5-9 / - / 6 None	exceeded/,	7.78
pH	9 Yes	3A (insuffic Less than 1 1C//2B/3A, 6.5-9 / - / 6 None	exceeded/,	8.15
pH	6 Yes	Not Assess Less than 1 1C//2B/3A, 6.5-9 / - / 6 None	sample not	8.24
pH	4 Yes	3A (insuffic Less than 1 1C//2B/3A, 6.5-9 / - / 6 None	exceeded/,	7.94
pH	7 Yes	3A (insuffic Less than 1 1C//2B/3A, 6.5-9 / - / 6 None	exceeded/,	7.8

R317\_Para AUSample( Flaged\_dat IRAnalysisA IRAnalysisC AU\_MSUSE USE\_Criter Use\_Criteri exceedenci MinOfIR\_V

Water Tem	7 Yes	3A (insuffic Less than 1 3A//	20//	deg C	exceeded/,	1
Water Tem	9 Yes	Not Assess Less than 1 3A//	20//	deg C	did not exc	2.8
Water Tem	2 Yes	3A (insuffic Less than 1 3A//	20//	deg C	exceeded/,	18.9
Water Tem	7 Yes	Not Assess Less than 1 3A//	20//	deg C	did not exc	4.7

StDevOfIR_IR_Unit_5y	MinOfActiv	MaxOfActiv	Monitoring	MS_WMU_	Location_L	Location Lc	TMDL agreement on in
						38.90722	-111.417 YES
						38.99667	-111.351 YES
mg/l	#####	#####	River/Strea	Colorado R		39.00251	-111.329 YES
						39.70224	-111.076 YES
						39.71083	-111.052 YES
						39.72135	-111.068 YES
1.246423 mg/l	#####	#####	River/Strea	Colorado R		39.71361	-111.056 YES
						39.40222	-111.101 YES
1.939495 mg/l	#####	#####	River/Strea	Colorado R		39.40944	-111.092 YES
5.091169 mg/l	#####	#####	River/Strea	Colorado R		39.43611	-111.113 YES
1.038963 mg/l	#####	#####	River/Strea	Colorado R		39.39972	-111.055 YES
						39.43917	-111.017 YES
1.176759 mg/l	#####	#####	River/Strea	Colorado R		39.44639	-111.093 YES

MaxOfIR_v	AvgOfIR_V	StDevOfIR_IR_Unit_5y	MinOfActiv	MaxOfActiv	Monitoring	MS_WMU_	Location_L	Location Lc
								39.29694 -111.181
9.15	8.174	1.172404	None	#####	#####	River/Strea	Colorado R	39.3175 -111.121
8.8	7.985714	0.819407	None	#####	#####	River/Strea	Colorado R	39.47861 -111.04
9.15	8.544286	0.465434	None	#####	9/5/2012	River/Strea	Colorado R	39.29417 -111.18
9.05	8.672222	0.26701	None	#####	#####	River/Strea	Colorado R	39.40833 -111.17
								39.38528 -111.084
								39.38194 -111.076
8.92	8.661667	0.249753	None	#####	#####	River/Strea	Colorado R	39.4025 -111.152
9.32	8.73	0.649615	None	#####	9/7/2011	River/Strea	Colorado R	39.38278 -111.11
9.1	8.285714	0.418045	None	#####	#####	River/Strea	Colorado R	39.44639 -111.093

MaxOfIR_v	AvgOfIR_V	StDevOfIR_IR_Unit_5y	MinOfActiv	MaxOfActiv	Monitoring	MS_WMU_	Location_L	Location Lc
								38.89861 -111.356
20.2	11.62857	7.790745	deg C	#####	9/5/2012	River/Strea	Colorado R	39.29417 -111.18
17	11.38889	5.251772	deg C	#####	#####	River/Strea	Colorado R	39.62766 -110.398
21.1	20	1.555635	deg C	#####	#####	River/Strea	Colorado R	39.43611 -111.113
19.1	15.02857	5.641724	deg C	#####	#####	River/Strea	Colorado R	39.44639 -111.093

mpairment

ngitude\_5yr

ngitude\_5yr