## **Project Work Plan**

## Lower Columbia Total-Dissolved-Gas (TDG) Monitoring: The Dalles Dam US Geological Survey Oregon Water Science Center

#### **Project personnel**

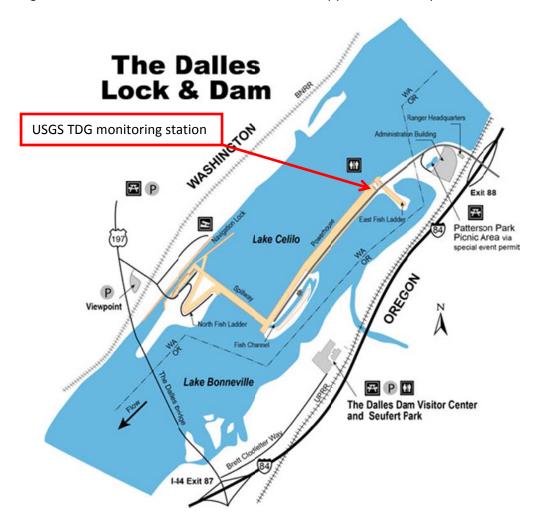
Heather Bragg, Danial Polette, Jonathan Haynes

#### **Dates of operation**

March 16, 2015 to September 25, 2015 (annually mid-March to mid-September)

#### Location

Monitoring is conducted at the far northeast corner of the upper deck of the powerhouse.



#### **Equipment**

Steel cabinet, steel post, satellite antenna, GPS antenna, extension cord to A/C power outlet, Powersonic battery float charger, solar panel, Morningstar voltage regulator, 12-volt battery, Sutron

SatLink2 data collection platform, Vaisala barometric pressure sensor, Hach MS5 multi-parameter water-quality instrument and cable, rope with weight secured to railing.



#### Work performed

The initial site visit (mid-March) includes installing all equipment not left at the site the previous year. Regular site visits to assess the quality of data are scheduled every 3 weeks after the installation through mid-September, when the equipment is removed. A site visit includes deploying a reference instrument, retrieving the instrument that had been deployed for 3 weeks, and deploying a newly calibrated instrument. A typical site visit takes about 2 hours. Occasionally, an unscheduled site visit may be necessary if there appears to be a problem with data quality, power loss, etc.

#### **Post-work coordination**

The following equipment remains at the site year-round: Steel cabinet, steel post, satellite antenna, solar panel, Morningstar voltage regulator, 12-volt battery.

#### **Project Impact Statement**

The TDG monitoring will have no effect on the normal operations and maintenance of the dam.

#### **Activity Hazard Analysis**

See USGS Job Hazard Analysis (JHA) attached.

#### **Material Safety Data Sheet**

No hazardous materials are used or brought onto the dam project.

#### **Permits**

No permits are required.

#### **Funding**

Funding for fiscal year 2015 has been secured from the USACE Portland District.

#### **General Safety**

All USGS field personnel are required to maintain current CPR and First Aid training, complete driver safety training, and wear appropriate safety gear and clothing.

HECP (IP) training completion forms attached.

#### **Security Access**

Security access forms for Heather Bragg and Danial Polette attached. Digital photos of both should be on file with security office. Key cards are requested in order to assure access to the top deck of the powerhouse.

The vehicle most commonly used by USGS personnel for the site visits is a 2008 dark green Ford E150 cargo van (license plate I-431366). Occasionally, this vehicle is not available and another government vehicle may be used.

#### **Pagers**

In the past, USGS personnel have not been required to carry pagers due to the short duration of time spent on the dam project. The current procedure requires USGS personnel to call or visit the on-site fisheries office when arriving and leaving the project.

## Job Hazard Analysis (JHA) for Total Dissolved Gas sites

USACE STATION ID	Site Name	USGS STATION ID
CWMW	Camas	453439122223900
WRNO	Warrendale	453630122021400
CCIW	Cascade Island	453845121564001
BON	Bonneville	453845121562000
TDDO	The Dalles at USGS gage	14105700
TDA	The Dalles forebay	453712121071200
JHAW	John Day tailwater	454249120423500
JDY	John Day at Nav. lock	454314120413701

Prepared By: Tanner, Bragg 6/04 Reviewed By: Kevin Knutson

Basic Job Steps	Potential Accidents/Hazards	Recommended Safe Job Procedures
Driving to and from the site	Traffic accident	Stay alert to driving conditions and obey all traffic laws. Reduce speed for hazardous conditions. Drive defensively. The driver and all passengers must wear a seat belt. Maintain the vehicle in a safe condition.
Backing van with obstructed rear view	Collision with another vehicle, fixed object, or person	Whenever possible, avoid the need for backing by parking in a location that permits a forward exit.
		When possible, have a helper guide the driver.
		Check the area behind the vehicle before getting in the vehicle to back.
		Turn down the radio, crack the window, and check your mirrors before backing.
		Keep your foot near the brake pedal while backing.
Loading and unloading equipment	Pinching fingers, crushing toes, back strain	Use caution, be aware of hand placement, and use proper lifting techniques (i.e. lift with legs, not back; get assistance if needed). Wear gloves, steel-toed shoes, and back support, as needed.
Working near outdoor AC	Electric shock or electrocution	Outdoor AC power is located at JDY, TDA, BON, and WRNO.
роwег		A ground fault circuit interrupter must protect all outdoor AC circuits. Make sure that electrical cords are not allowed to be in contact with water. Do not stand in a wet area while operating power equipment.
Walking at the field site	Trips and falls	Check that path is clear and footing is sound.
	Dehydration and sun stroke	Drink plenty of liquids and rest in the shade if necessary.
	Sunburn	Use sunglasses, hat, sunscreen, and protective clothing.
	Hypothermia	Wear foul-weather gear.
	Drowning	Wear a personal flotation device (PFD) at all sites when over or near water.
	Injury from lightning or wind	Do not leave the vehicle during severe weather.

## THE DALLES PROJECT ACCESS REQUEST

(This form is to be submitted a minimum of 24 hours prior to badge issue)

SECTION I: GENERAL				
1. NAME (Last, First, MI) Bragg, Heather M.				
2. COMPANY NAME	3. PH0			
US Geological Survey	5	03-251-3	3224	
4. REQUESTED DATES OF ACCESS 03/01/15 to 09/30/15				
5. POWERHOUSE ACCESS REQUIRED? (If unescorted access is required, please	e fill SECTION II)			
☐ Unescorted ☐ Escorted ☐ Powerhouse Access not r				
6. US CITIZEN		7. E-	MAIL ADDRESS	
■ Yes □ No (specify citizenship)		h	mbragg@usgs.gov	
For Contractors, complete boxes 8 through 12  8. PRIMARY CONTRACTOR	9. PH0	IONE		
US Geological Survey		503-251-3	3224	
10. CONTRACT WORK DESCRIPTION			<del></del> -	
Total Dissolved Gas monitoring				
11. ACCESS AREAS				
NE end of top deck of powerho	ouse only	У		
12. WORK HOURS	<b>.</b>			
<u> </u>	Weekends	DECLIECT		
13. REASON FOR ISSUANCE	ION II: BADGE I	REQUEST		
☐ New Application ☐ Renewal ☐ Lost ☐ Other (specify):	☐ Stolen	☐ Damage	ed	
14. DATE OF BIRTH 15. PLACE OF BIRTH CO2/14/72 Greeley, C	0			
16. IDENTIFICATION				
ID# State/Issuing Ag ODL#9150793 Oregon	gency	Expiration 02/14/20	0	
I agree not to loan, transfer, misuse, or modify ID Badg	e. I agree to r	return to the	Security Office the Prox	imity Card issued to
me upon completion of work.				
17. APPLICANT SIGNATURE	18. DA	02/0	2/15	
	or The Dalles us	ise only		
19. THE DALLES POINT OF CONTACT  a. NAME	b. SIGNATURE			c. DATE
20. RELIABILITY COMPLIANCE a. NAME	b. SIGNATURE			c. DATE
21. N/A				
a. NAME	b. SIGNATURE			c. DATE
22. BADGE ISSUED BY	1			
a. NAME	b. SIGNATURE			c. DATE
23. BADGE NUMBER ISSUED 24. EXPIRATION	ON DATE			
25. BADGE ISSUED				
☐ TD Employee ☐ USACE Employee ☐	Contractor	☐ Visite	or (Escorted)	
☐ Other Fed Agency		POWERHO	OUSE ACCESS? YES / NO	

## THE DALLES PROJECT ACCESS REQUEST

(This form is to be submitted a minimum of 24 hours prior to badge issue)

SECTION I: GENERAL			
1. NAME (Last, First, MI)			
2. COMPANY NAME	3. PHONE		
4. REQUESTED DATES OF ACCESS			
5. POWERHOUSE ACCESS REQUIRED? (If unescorted access is required, plea	ase fill SECTION II)		
☐ Unescorted ☐ Escorted ☐ Powerhouse Access no	t required		
6. US CITIZEN  ☐ Yes ☐ No (specify citizenship)	7. E-MAIL ADDRESS		
For Contractors, complete boxes 8 through 12			
8. PRIMARY CONTRACTOR	9. PHONE		
10. CONTRACT WORK DESCRIPTION	<u> </u>		
11. ACCESS AREAS			
12. WORK HOURS			
Gam - 6pm 24hrs	□ Weekends		
	CTION II: BADGE REQUEST		
13. REASON FOR ISSUANCE  ☐ New Application ☐ Renewal ☐ Lost ☐ Other (specify):	☐ Stolen ☐ Damaged		
14. DATE OF BIRTH 15. PLACE OF BIRTH			
16. IDENTIFICATION ID# State/Issuing A	Agency Expiration		
I agree not to loan, transfer, misuse, or modify ID Baa me upon completion of work.	lge. I agree to return to the Security Office the Pro	kimity Card issued to	
17. APPLICANT SIGNATURE	February 9, 2015		
	For The Dalles use only		
19. THE DALLES POINT OF CONTACT a. NAME	b. SIGNATURE	c. DATE	
20. RELIABILITY COMPLIANCE a. NAME	b. SIGNATURE		
21. N/A a. NAME	b. SIGNATURE	c. DATE	
22. BADGE ISSUED BY a. NAME	b. SIGNATURE	c. DATE	
23. BADGE NUMBER ISSUED 24. EXPIRA	TION DATE	1	
25. BADGE ISSUED			
☐ TD Employee ☐ USACE Employee	☐ Contractor ☐ Visitor (Escorted)		
☐ Other Fed Agency	POWERHOUSE ACCESS? YES / NO		

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1. NAME (Last, First, MI)				
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4. REQUESTED DATES OF ACCESS	1			
5. POWERHOUSE ACCESS REQUIRED? (If unescorted access is required, please				
6. US CITIZEN  □ Yes □ No (specify citizenship)	6. US CITIZEN 7. E-MAIL ADDRESS			
For Contractors, complete boxes 8 through 12				
8. PRIMARY CONTRACTOR	9. PHONE			
10. CONTRACT WORK DESCRIPTION				
11. ACCESS AREAS				
12. WORK HOURS	l Weekends			
	ION II: BADGE REQUEST			
13. REASON FOR ISSUANCE  ☐ New Application ☐ Renewal ☐ Lost ☐ Other (specify):	☐ Stolen ☐ Da	amaged		
14. DATE OF BIRTH 15. PLACE OF BIRTH				
16. IDENTIFICATION  ID# State/Issuing Age	ency Expir	ation		
I agree not to loan, transfer, misuse, or modify ID Badge me upon completion of work.	e. I agree to return to	the Security Office the Prox	imity Card issued to	
17. APPLICANT SIGNATURE 18. DATE 02/03/15				
Fo	or The Dalles use only			
19. THE DALLES POINT OF CONTACT a. NAME	b. SIGNATURE		c. DATE	
20. RELIABILITY COMPLIANCE a. NAME	b. SIGNATURE		c. DATE	
21. N/A a. NAME	b. SIGNATURE		c. DATE	
22. BADGE ISSUED BY a. NAME	b. SIGNATURE		c. DATE	
23. BADGE NUMBER ISSUED 24. EXPIRATION	ON DATE			
25. BADGE ISSUED				
	1 Contractor	Visitor (Escorted)		
☐ Other Fed Agency	POW	ERHOUSE ACCESS? YES / NO		

# The Dalles Lock and Dam HECP Training <u>Hazardous Energy Control Program</u>

for

## Incidental Persons

I, the undersigned, do acknowledge that I have <u>read</u> the HECP, Incidental Persons materia	als. (initials)
I, the undersigned, do acknowledge that I <u>understand</u> the HECP, Incidental Persons mater	rials. (initials)
I, the undersigned, understand that if I have any questions or concerns about the HECP, In materials I have read, that I am to discuss those concerns with my Point of Contact (POC)	
Name: Heather Braga (please print neatly or you which ot receive credit for the training)	-
Date: 02/02/15	
company: U.S. Geological Survey	

# The Dalles Lock and Dam HECP Training

# <u>Hazardous Energy Control Program</u>

for

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I, the undersigned, do acknowledge that I <u>understand</u> the HECP, Incidental Persons materials.	(initials)
I, the undersigned, understand that if I have any questions or concerns about the HECP, Incident materials I have read, that I am to discuss those concerns with my Point of Contact (POC) prior to the prior of the	/
Name:	
Date: 72015	
Company: 21.1. Deologica Durven	

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I, the undersigned, do acknowledge that I <u>understand</u> the HECP, Incidental Persons materials.	(initials)
I, the undersigned, understand that if I have any questions or concerns about the HECP, Incidental Perso materials I have read, that I am to discuss those concerns with my Point of Contact (POC) prior to signing	
Name: Jonathan Haynes  (please print neatly or you will not receive credit for the training)	
Date: 2/3/2015	
Company: U.S. Geological Survey	
Signature: Januthan Hayrus	