DEPARTMENT OF HEALTH & HUMAN SERVICES

COMMITTED TO CARING

PUBLIC HEALTH SERVICE

Indian Health Service

Memorandum

Date: August 1, 2013

From: Robert Lorenz, District Engineer, Eastern District RJL

Subject: Amendment No. 1 to the Project Summary, Project PH 12-E73

To: Tom Heintzman, Director DSFC, Phoenix Area Indian Health Service

This memorandum shall serve as Amendment No. 1 to the Project Summary for Project PH 12-E73, Hopi Indian Reservation.

In August 2012, the Hopi Tribe and IHS entered into a Memorandum of Agreement (MOA) to perform work defined in the Project Summary for Project PH 12-E73, which included continuing construction and O&M support for Phase 1 of the Hopi Arsenic Mitigation Project (HAMP).

This Amendment No. 1 to Project PH 12-E73 provides for an increase in funding, through the contribution of additional EPA Drinking Water Tribal Set-Aside funds, towards construction and O&M support of HAMP Phase 1, in the amount of $275,534.

A revised cost estimate and funding summary for the HAMP is attached to this memorandum.

	Original PH 12-E73 Project Summary	Funding Increase	Revised PH 12-E73 Project Summary
Maximum Contribution to the Tribe	$ 778,992	$ 233,532	$ 1,012,524
IHS Project Technical Support	75,630	28,002	103,632
IHS Engineering Program Support	45,378	14,000	59,378
Total	$ 900,000	$ 275,534	$1,175,534

HAMP CONTRIBUTION SUMMARY:

Funding Agency	IHS Project	Total	PTS	EPS
EPA	**PH 12-E73**	**$ 1,175,534.00**	**$ 103,632.00**	**$ 59,378.00**
EPA	PH 11-E55	$ 1,100,000.00	$ 110,880.00	$ 36,960.00
EPA	PH 10-E37	$ 1,857,400.00	$ 188,660.00	$ 62,887.00
IHS	PH 08-T38	$ 150,000.00	$ 15,600.00	
IHS	PH 06-D33	$ 205,000.00	$ 14,800.00	$ 31,531.70
IHS	PH 04-S63	$ 800,000.00	$ 69,930.00	
Total		$ 5,287,934.00	$ 503,502.00	$ 190,756.70

ADDITIONAL FUNDS NEEDED FOR PHASE 1

Est. Total Cost of Phase 1	$ 11,583,000.00
Funded Projects	$ 5,287,934.00
Deficit	$ 6,295,066.00

ADDITIONAL FUNDS NEEDED FOR ENTIRE PROJECT

Est. Total Cost of HAMP	$ 18,502,000.00
Funded Projects	$ 5,287,934.00
Deficit	$ 13,214,066.00

Hopi Arsenic Mitigation Project
Preliminary Phase 1 Estimate
Date: 08/02/2013
Prepared By: Adam E Hughes, PE

PHASE 1 COST ESTIMATE

Schedule A: Project Planning & Design

Item	Description	Quantity	Units	Units Cost	Total
1	Geotechnical Investigations	1	LS	$ 70,000.00	$ 70,000.00
2	Hydrogeologic Study	1	LS	$ 110,000.00	$ 110,000.00
3	Drainage/Hydrologic Study	1	LS	$ 20,000.00	$ 20,000.00
4	Aerial Survey (Mapping)	1	LS	$ 75,000.00	$ 75,000.00
5	Environmental Assessment	1	LS	$ 100,000.00	$ 100,000.00
6	Utility Management Plan	1	LS	$ 85,000.00	$ 85,000.00
				Planning & Design Total:	**$ 460,000.00**

Schedule B: Construction

Item	Description	Quantity	Units	Units Cost	Total
1	Generator	2.0	EA	$ 140,000.00	$ 280,000.00
2	Backup Generator	2.0	EA	$ 125,000.00	$ 250,000.00
3	Drill New Well	2	LS	$ 1,125,000.00	$ 2,250,000.00
4	12" Water Main	87,800	LF	$ 50.00	$ 4,390,000.00
5	12" Gate Valves	17	EA	$ 5,000.00	$ 85,000.00
6	Disinfect Pumphouse/Well Controls/Pumps/Pitless Adapter/Drop Pipe	2	LS	$ 260,000.00	$ 520,000.00
7	Altitude Valve & Vault	1	EA	$ 30,000.00	$ 30,000.00
8	Master Meter & Tank Interconnection	1	EA	$ 26,000.00	$ 26,000.00
	West Tank Dedicated Fill From PZ1				
9	8" Water Main	3,300	LF	$ 40.00	$ 132,000.00
10	Altitude Valve and Vault	1	LS	$ 15,000.00	$ 15,000.00
11	West Tank Connection	1	LS	$ 9,000.00	$ 9,000.00
				Construction Total:	**$ 7,987,000.00**

Schedule C: O&M Support

Item	Description	Quantity	Units	Units Cost	Total
1	1-Year Start-Up Assistance	30	DAYS	$ 500.00	$ 15,000.00
2	O&M Materials, Equipment and Space	1	LS	$ 325,000.00	$ 325,000.00
3	O&M Manual Development	1	LS	$ 30,000.00	$ 30,000.00
				Post Construction Total:	**$ 370,000.00**

Planning & Design Total (Schedule A)		**$ 460,000.00**	
Construction Total (Schedule B)		**$ 7,987,000.00**	
O&M Support Total (Schedule C)		**$ 370,000.00**	
Contingency (Schedules A, B, & C)		**$ 881,700.00**	10.00%
		Subtotal	**$ 9,698,700.00**
TERO/Tribal Tax	0.5%	**$ 48,493.50**	
Tribal Procurement 1=YES, 0=NO	1		
Tribal Administrative Support Fee		**$ 196,224.00**	
		Subtotal Tribal Fees	**$ 244,717.50**
PROFESSIONAL FEES:			
IHS Engineering Program Support (EPS)		**$ 581,922.00**	6.00%
		Subtotal Professional Fees	**$ 581,922.00**
IHS Project Technical Support Fee (PTS)		**$ 1,058,085.32**	
		Subtotal PTS	**$ 1,058,085.32**
		Total Phase Cost	**$ 11,583,424.82**
		Rounded	**$ 11,583,000.00**

Hopi Arsenic Mitigation Project
Preliminary Phase 2 Cost Estimate
Date: 08/02/2013
Prepared By: Adam E Hughes, PE

PHASE 2 COST ESTIMATE

Schedule A: Project Planning & Design

Item	Description	Quantity	Units	Units Cost	Total
1	See Phase 1 Estimate				
				Planning & Design Total:	$ -

Schedule B: Construction

Item	Description	Quantity	Units	Units Cost	Total
1	12" Water Main	12,900	LF	$ 50.00	$ 645,000.00
2	12" Gate Valves	2	EA	$ 5,000.00	$ 10,000.00
3	10" Water Main	40,300	LF	$ 43.00	$ 1,732,900.00
4	10" Gate Valves	8	EA	$ 5,000.00	$ 40,000.00
5	8" Water Main	8,800	LF	$ 30.00	$ 264,000.00
6	8" Gate Valves	4	EA	$ 3,000.00	$ 12,000.00
7	Master Meter & Interconnection	1	EA	$ 26,000.00	$ 26,000.00
8	Booster Station (2nd Mesa)	1	LS	$ 140,000.00	$ 140,000.00
9	Booster Station Power Extension (2nd Mesa)	0.0	MILE	$ 120,000.00	$ -
10	Booster Station Generator	1	LS	$ 74,000.00	$ 74,000.00
11	Booster Station Backup Generator	1	LS	$ 60,000.00	$ 60,000.00
12	250,000 gal WST	2	EA	$ 300,000.00	$ 600,000.00
				Construction Total:	$ 3,603,900.00

Schedule C: O&M Support

Item	Description	Quantity	Units	Units Cost	Total
1	1-Year Start-Up Assistance	10	DAYS	500	$ 5,000.00
2	O&M Materials, Equipment and Space	1	LS	$ 46,000.00	$ 46,000.00
3	O&M Manual Development	1	LS	$ 10,000.00	$ 10,000.00
				Post Construction Total:	$ 61,000.00

Planning & Design Total (Schedule A)		$ -	
Construction Total (Schedule B)		$ 3,603,900.00	
O&M Support Total (Schedule C)		$ 61,000.00	
Contingency (Schedules A, B, & C)		$ 366,490.00	10.00%
		Subtotal	$ 4,031,390.00
TERO/Tribal Tax	0.5%	$ 20,156.95	
Tribal Procurement 1=YES, 0=NO	1		
Tribal Administrative Support Fee		$ 82,877.80	
		Subtotal Tribal Fees	$ 103,034.75
PROFESSIONAL FEES:			
IHS Engineering Program Support (EPS)		$ 241,883.40	6.00%
		Subtotal Professional Fees	$ 241,883.40
IHS Project Technical Support Fee		$ 483,766.80	12.00%
		Subtotal PTS	$ 483,766.80
		Total Phase Cost	$ 4,860,074.95
		Rounded	$ 4,860,000.00

Hopi Arsenic Mitigation Project
Preliminary Phase 3 Cost Estimate
Date: 08/02/2013
Prepared By: Adam E Hughes, PE

PHASE 3 COST ESTIMATE

Schedule A: Project Planning & Design

Item	Description	Quantity	Units	Units Cost	Total
1	See Phase 1 Estimate				
				Planning & Design Total:	$ -

Schedule B: Construction

	Description	Quantity	Units	Units Cost	Total
1	8" Water Main	24,800	LF	$ 30.00	$ 744,000.00
2	8" Gate Valves	9	EA	$ 3,000.00	$ 27,000.00
3	Altitude Valve & Vault	1	EA	$ 30,000.00	$ 30,000.00
4	Pressure Reducing Valve & Vault	2	EA	$ 30,000.00	$ 60,000.00
5	Master Meter & Interconnection	1	EA	$ 26,000.00	$ 26,000.00
6	Booster Station (Upper Sipaulovi)	1	LS	$ 60,000.00	$ 60,000.00
7	Tank Controls and Power Service	1	LS	$ 40,000.00	$ 40,000.00
8	Half Burried 200KGal Water Storage Tank	1	LS	$ 550,000.00	$ 550,000.00
				Construction Total:	$ 1,537,000.00

Schedule C: O&M Support

Item		Quantity	Units	Units Cost	Total
1	1-Year Start-Up Assistance	10	DAYS	500	$ 5,000.00
2	O&M Materials, Equipment and Space	1	LS	$ 5,000.00	$ 5,000.00
3	O&M Manual Development	1	LS	$ 5,000.00	$ 5,000.00
				Post Construction Total:	$ 15,000.00

Planning & Design Total (Schedule A)		$ -		
Construction Total (Schedule B)		$ 1,537,000.00		
O&M Support Total (Schedule C)		$ 15,000.00		
Contingency (Schedules A, B, & C)		$ 155,200.00		10.00%
		Subtotal	$	1,707,200.00
TERO/Tribal Tax	0.5%	$ 8,536.00		
Tribal Procurement 1=YES, 0=NO	1			
Tribal Administrative Support Fee		$ 36,394.00		
		Subtotal Tribal Fees	$	44,930.00
PROFESSIONAL FEES:				
IHS Engineering Program Support (EPS)		$ 102,432.00		6.00%
		Subtotal Professional Fees	$	102,432.00
IHS Project Technical Support Fee		$ 204,864.00		12.00%
		Subtotal PTS	$	204,864.00
		Total Phase Cost	$	2,059,426.00
		Rounded	$	2,059,000.00