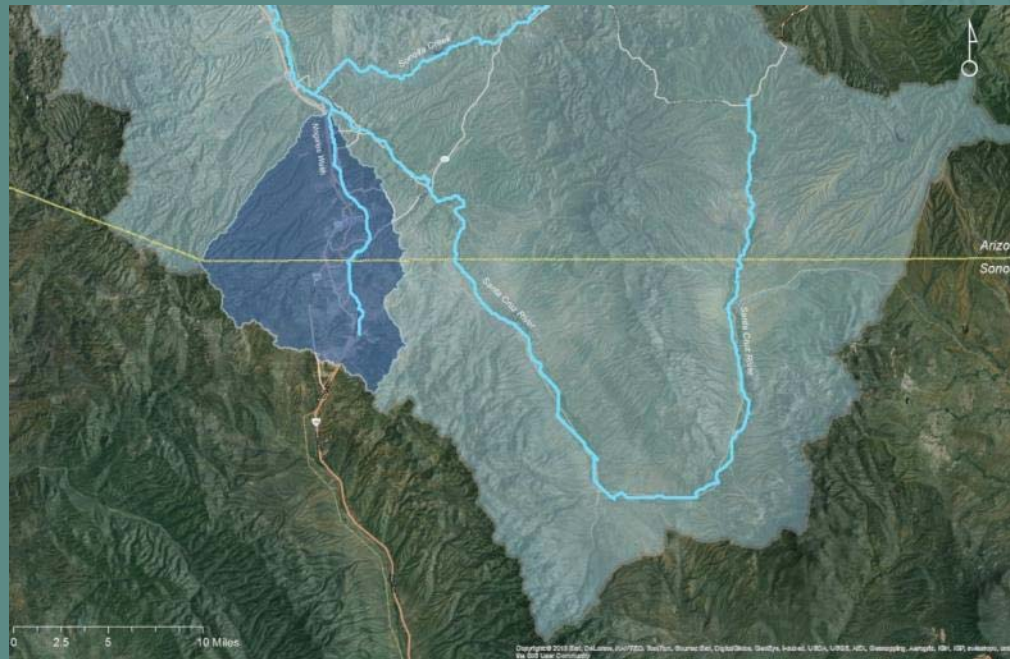


AZ-Sonora Watershed Task Force 2015-2016 Action Plan and Recommendations



Hans Huth, Hydrologist
EPA Border 2020
National Coordinators Meeting
El Paso, Texas

September 22, 2014



“Task Force representatives, please highlight 2-3 activities in the 2015-2016 Action Plan and conclude with suggestions on how Border 2020 program can better serve the Task Forces.”

Goal 2 – Improve Access to Clean Water

- Over **\$26M dollars** committed in **13 projects**
- Bulk are spearheaded by **EPA, CONAGUA, NADB, BECC, IBWC**

Goal 2 – Improve Access to Clean and Safe Water

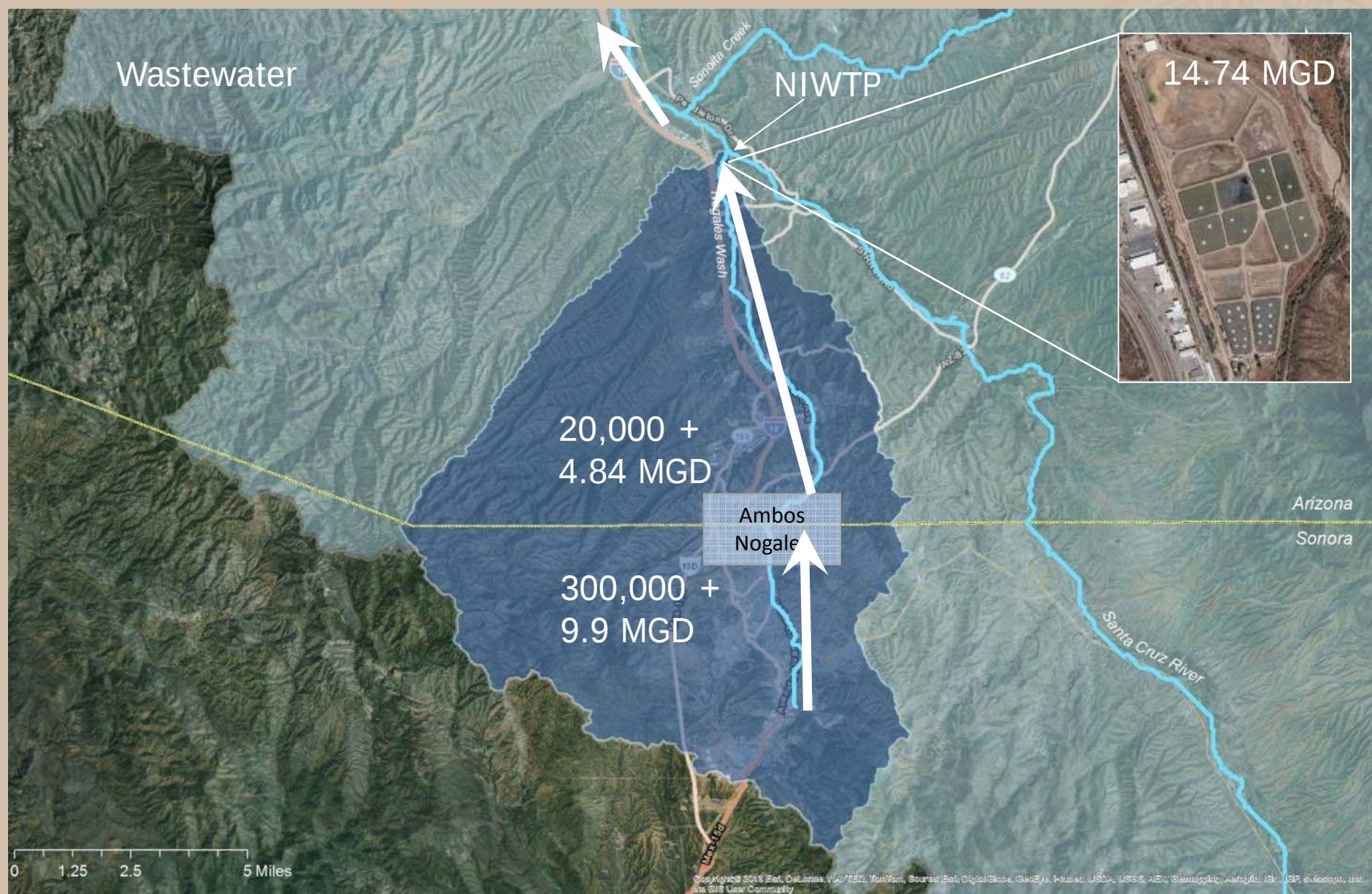
DRAFT ARIZONA-SONORA BORDER 2020 ACTION PLAN - 2015-2016

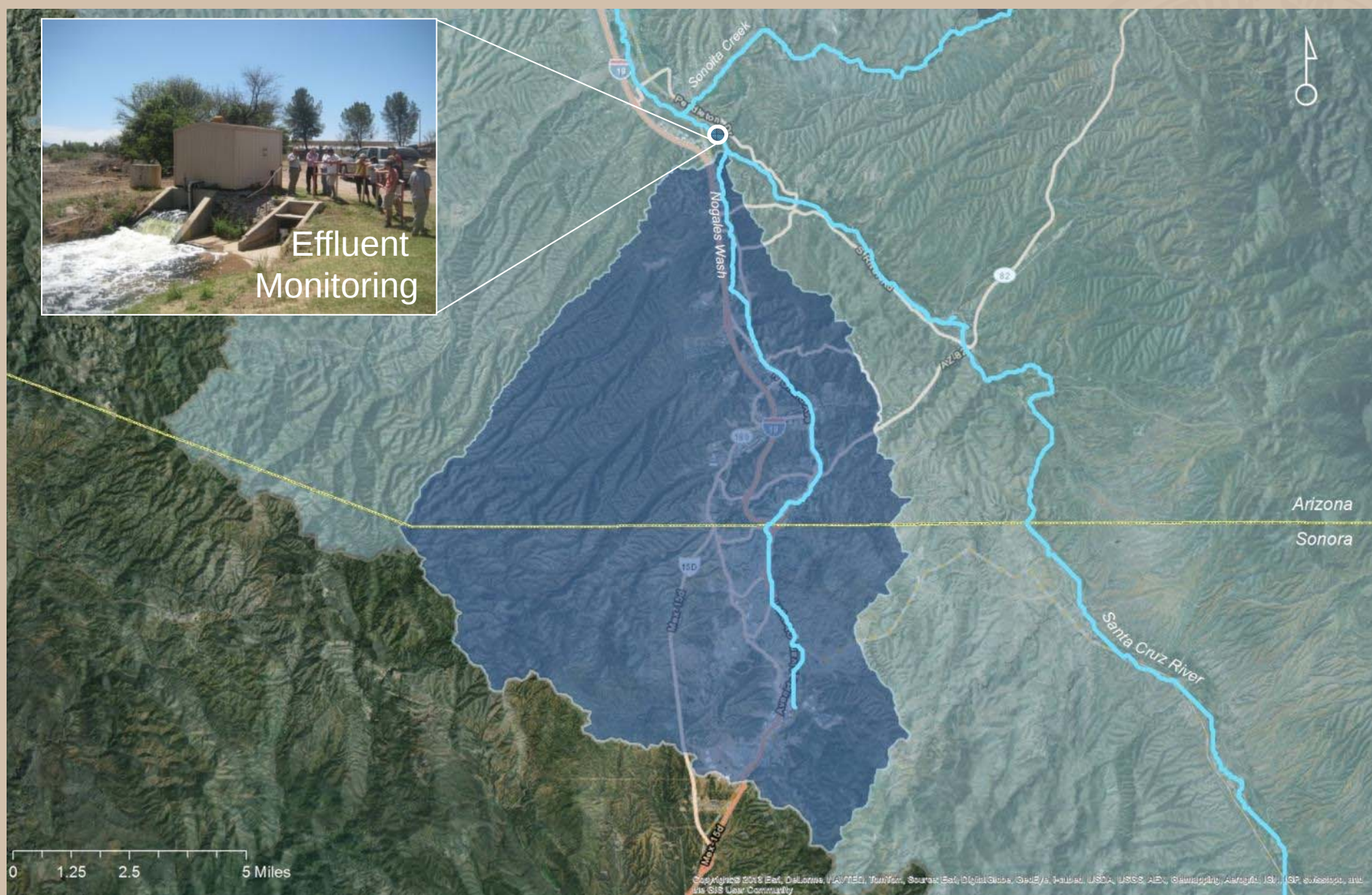
Goal 2- Improve Access to Clean and Safe Water

Description of Action	Collaborating Organizations	Cost	Sources of Funding	Lead Points of Contact	2016 Target Output and Results
Objective 3: Work binationally to identify and reduce surface water contamination in specific high priority water bodies or watersheds.					
Sub-objective 3b: Every two years, identify and implement at least one project to reduce the level of heavy metals, sediment, and/or bacteria					
Sampling and testing equipment and supplies to support Ambos Nogales waste characterization study.	International Boundary and Water Commission (IBWC)	Est \$20,000	IBWC	Wayne Belzer-IBWC (wayne.belzer@ibwc.gov)	Metrics: Prepare joint waste characterization study for Nogales, Arizona and Sonora and provide resources as needed to implement study. Anticipated Results:
Facilitate binational technology and expertise exchange for pretreatment of metals in wastewater.	ADEQ, EPA, Partnering Organizations or Industries	Staff Time	ADEQ, US EPA, Partnering Organizations or Industries	Hans Huth- ADEQ (huth.hans@azdeq.gov)	Metrics: Peer-to-peer industry outreach to improve management of metals in wastewater discharges. Anticipated Result: field trips - one metal plater, work with APSA environmental groups, set up laboratory in Nogales, Sonora for quicker testing of water samples.
Develop pre-treatment toolkit focused on reducing Fats, Oils, and Greases (FOG) at WWTP	BECC/EPA, City of Nogales	\$68,000	EPA	Doug Liden, liden.douglas@epa.gov	Metric: Toolkit on reducing FOG. Anticipated Result: Develop outreach materials and programs to educate residents on impacts of FOG on sewer system and proper ways to dispose of them.
Design for Rehabilitation of International Outfall and Interceptor	IBWC	\$639,000	IBWC	Crystal Cadillo , Crystal.cadillo@ibwc.gov	Metrics: Design and rehab of IOI Improvements. Anticipated results: Extend life of IOI to continue treatment of wastewater from Ambos Nogales.
Provide training on handling of wastewater containing metals and cyanide	EPA, BECC, ADEQ, APSA, ASU, OOMAPAS, Alcoa	\$57,000	EPA	Doug Liden, liden.douglas@epa.gov	Metric: Training on handling of wastewater contaminated metals & cyanide. Anticipated Results: Convene two workshops (one on each side of the border) to train metal-plating industries on proper management and treatment of wastewater in order to avoid upsets at Nogales International Treatment Plant.

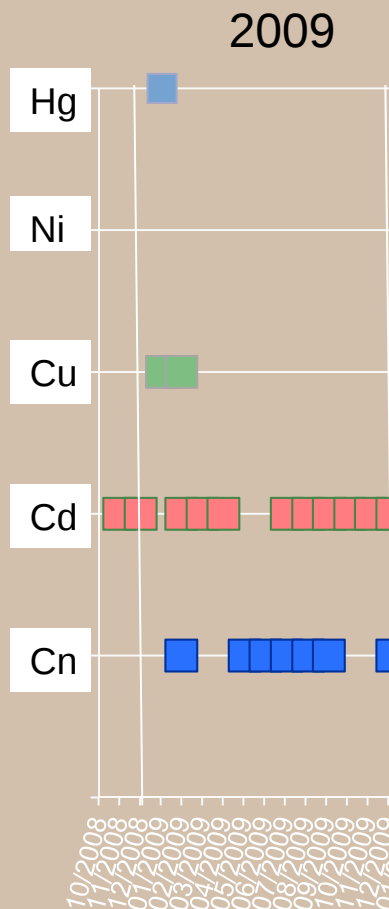


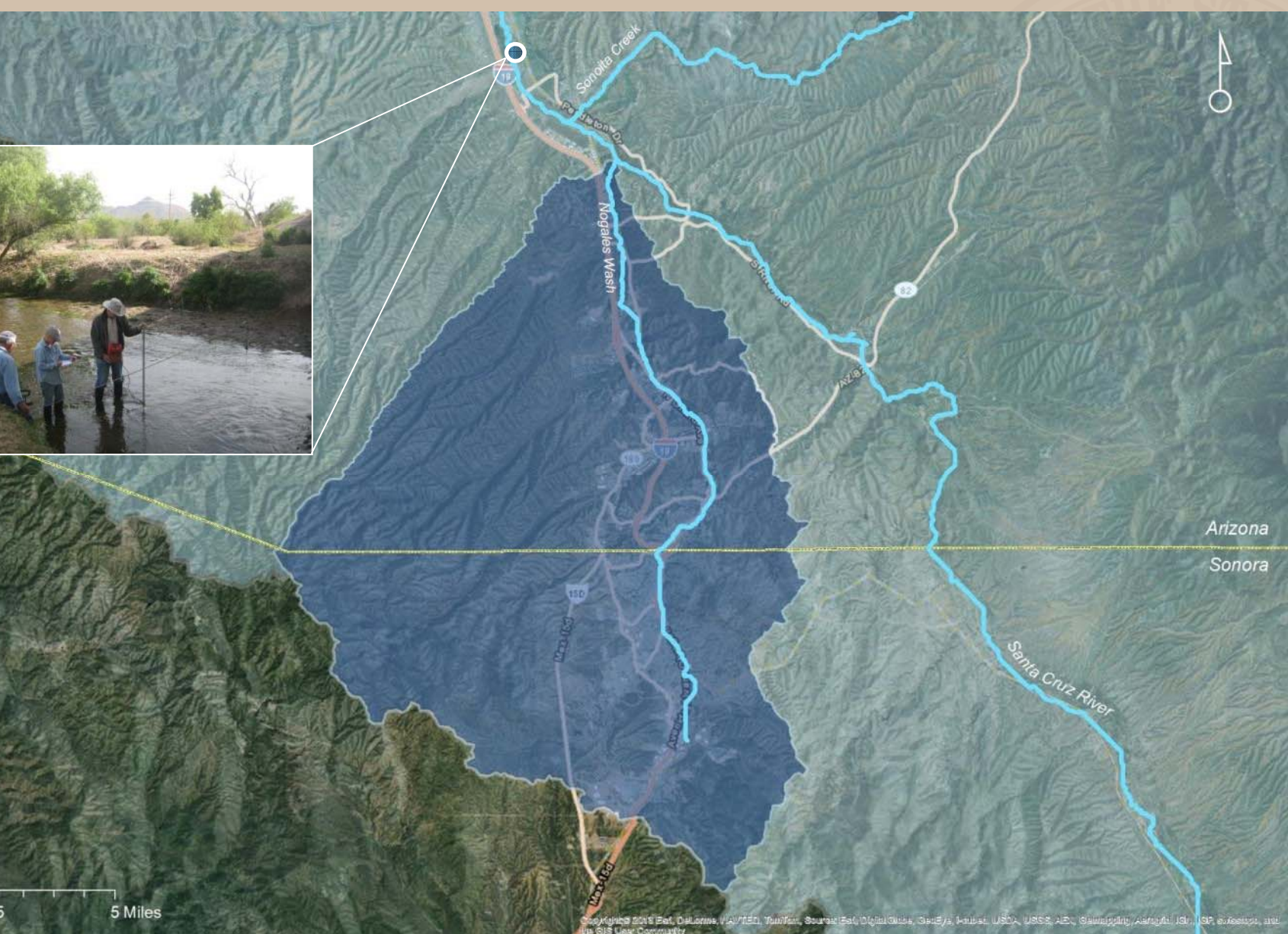
Map courtesy of the Arizona-Sonora Desert Museum





Discharge Monitoring Report Notifications to ADEQ November, 2008 - 2009

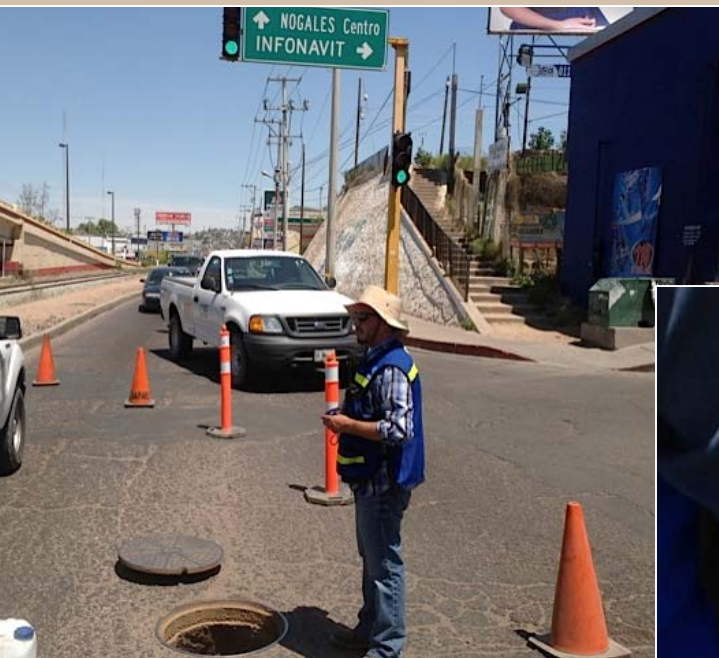




ons before AMC action item on metals mitigation

Date	Tot. Cd (ug/l)	Dis. Cd (ug/l)	Hardness ^a Ca+Mg (ppm)	Standard (ug/l)
4/30/08	5.6	2.1	157	0.77
7/29/08	3.3	ND	148	0.74
10/28/08	ND	ND	159	0.77
1/26/09	4.8	ND	159	0.77
4/28/09	2.7	2.5	157	0.77
7/28/09	3.8	3.5	148	0.74
10/27/09	9.1	8.3	147	0.73
1/26/10	ND	ND	153	0.75
4/29/10	4.1	3.5	147	0.73
8/25/10	ND	ND	160	0.78
10/27/10	2.31	2.1	170	0.81





Binational Peer-to-Peer Training Handling of Wastewater Containing Metals and Cyanide.



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Communicate Quarterly Updates to Regulated Community in Sonora

APAS-NS shares Sonora's concerns



ADEQ shares Arizona concerns



NIWTP Tolerance for Cadmium at 645.8 LPS: 5.58 kg

Month, Year	Monthly Loading Manhole 1
August, 2009	76.76
October, 2009	67.60
January, 2010	34.08
April, 2010	29.82
August, 2010	1.93
October, 2010	8.38
February, 2011	7.76
June, 2011	7.54
August, 2011	17.31
October, 2011	32.88
January, 2012	6.47
April, 2012	4.81

Month, Year	Monthly Loading Manhole 1
July, 2012	2.85
October, 2012	~2.00
January, 2013	0.60
April, 2013	0.93
July, 2013	1.84
October, 2013	0.62
January, 2014	0.99
April, 2014	6.16
July, 2014	3.17
October, 2014	0.82
February, 2015	5.38
April, 2015	0.48

Conditions in SCR after AMC action item on metals mitigation

Date	Total Cd (ug/l)	Dis. Cd (ug/l)	Hardness ^a Ca+Mg (ppm)	Standard (ug/l)
2/23/11	ND	ND	153**	0.75
5/25/11	ND	ND	146	0.73
8/31/11	1.7	1.6	143	0.72
11/30/11	ND	ND	145	0.73
2/29/12	ND	ND	140	0.71
4/25/12	ND	ND	149	0.74
7/25/12	ND	ND	140	0.71
10/31/12	ND	ND	152	0.75
1/31/13	ND	ND	161	0.78
4/24/13	ND	ND	147	0.74

ADEQ-leveraged monitoring ended in FY-13.

IBWC monitoring is a new requirement of the NIWTP AZPDES

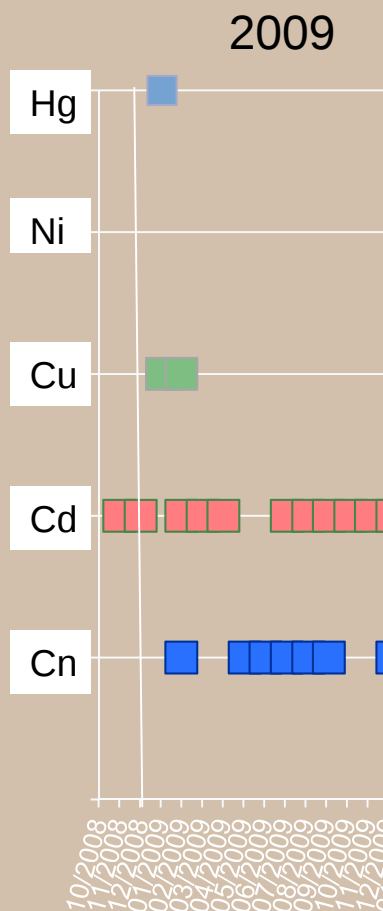


Permisibles Cargas de Entrada (AHL) a 623.0 LPS
Reflejando Datos Actuales Compartidos por IBWC para el Trimestre 2, 2015
Kg/día =f(flujo)

Contaminante	MAHL Arizona (kg/mes)	MAHL Sonora (kg/mes)	MAHL TOTAL (kg/mes)	Carga Mensual Arizona (kg/mes)	Carga Mensual Sonora (kg/mes)	Carga Mensual Sonora Excedencia Kg	Carga Mensual Sonora Excedencia %	Carga Mensual Influyente (kg/mes)	Proceso Impactado
Arsenio	3.33	26.86	30.19	3.98	5.09			9.57	
Cadmio	0.59	4.79	5.38	0.04	0.44			0.48	
Cromo	2.45	19.73	22.18	0.00	50.37	30.63	155%	47.50	Lodos
Cobre	18.32	147.60	165.92	0.00	363.72	216.12	146%	292.74	Efluente
Cianurio	7.29	58.74	66.03	0.00	136.40	77.67	132%	275.87	
Plomo	2.13	17.17	19.30	0.00	6.74			6.71	
Mercurio	0.12	0.93	1.05	0.02	0.26			0.27	
Niquel	20.04	161.50	181.54	0.00	458.78	297.28	184%	396.83	Lodos, Efluente
Selenio	0.80	6.42	7.22	0.00	1.18			1.33	
Plata	2.67	21.49	24.15	-0.37	1.00			0.57	
Zinc	38.75	312.25	351.00	0.00	329.05	16.79	5%	314.50	Microbiologia
1,4-Dichlorobenzene	12.85	103.58	116.43	177.84	0.00			208.86	



Discharge Monitoring Report Notifications to ADEQ November, 2008 - Present



U.S. Environmental Protection Agency Border 2020 Program Training on Handling of Wastewater Containing Metals and Cyanide.



- Formal classroom instruction on pretreatment
- Facilitate peer-to-peer training by Alcoa in Tucson



Prepare and host two binational workshops
for metal-plating facilities.



ASOCIACION DE PROFESIONALES
EN SEGURIDAD AMBIENTAL, A.C.

U.S. Environmental Protection Agency Border 2020 Program Training on Handling of Wastewater Containing Metals and Cyanide.

Course candidates are facilities in Ambos Nogales
that work with or subcontract in:

Metal plating

Metalworking stamping

CNC machining

Electronic boards washing

Refurbishing industrial pumps

Metal painting, powder coating



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**ASOCIACION DE PROFESIONALES
EN SEGURIDAD AMBIENTAL, A.C.**

U.S. Environmental Protection Agency Border 2020 Program Training on Handling of Wastewater Containing Metals and Cyanide.

First Training Completed:

June 23-24, 2015

7 representatives from:

Weiser Lock

Pencom Safe

Kronos

Cromadora Internacional

Second Training:

October 9, 10 (tentative)

OOMPAS-NS Recommendations:

Master Lock

BOC Edwards

ITT Cannon

Smurfit-Kappa

BE Aerospace



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**ASOCIACION DE PROFESIONALES
EN SEGURIDAD AMBIENTAL, A.C.**

U.S. Environmental Protection Agency Border 2020 Program Training on Handling of Wastewater Containing Metals and Cyanide.

Pending

- Peer-to-peer training in Arizona is not likely given need for passport copies by hosting facility. High cost of passport acquisition is acting as a barrier.
- BECC is still awaiting confirmed registration list prior to granting APSA a no-cost extension for hosting the second workshop.
- OOMAPAS-NS and ADEQ will recognize those facilities that have participated in the training, pending coordination by OOMAPAS with the Association of Maquiladora's of Sonora.



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**ASOCIACION DE PROFESIONALES
EN SEGURIDAD AMBIENTAL, A.C.**

Recommendations

“Task Force representatives, please highlight 2-3 activities in the 2015-2016 Action Plan and conclude with suggestions on how Border 2020 program can better serve the Task Forces.”

Objective 3: Work binationally to identify and reduce surface water contamination in specific high priority water bodies or watersheds.

Sub-objective 3b: ~~Every two years, identify and implement at least one project to reduce the level of heavy metals, sediment, and/or bacteria entering the Santa Cruz River and/or the Nogales Wash~~

commendations



Task Force representatives, please highlight 2-3 activities in the 2015-2016 Action Plan and conclude with suggestions on how Border 2020 program can better serve the Task Forces.”

Over **\$26M dollars** committed in **13 projects**

Bulk are spearheaded by **EPA, CONAGUA, NADB, BECC, IBWC**

commendations



Over **\$26M dollars** committed in **13 projects**
Bulk are spearheaded by **EPA, CONAGUA, NADB, BECC, IBWC**

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Border Environment Infrastructure Fund Eligibility Criteria and Management

Recommendations

Arizona Department of Environmental Quality (ADEQ)
Office of Border Environmental Protection (OBEP)
5/15/2015

Contains 9 recommendations supported by
a well documented case study.

Shared with EPA and the BECC in May, 2015

Additional recommendations and
supporting case studies in development.

Border Environment Infrastructure Fund (BEIF) eligibility criteria are important for ensuring the
viability of current and new investments in binational potable and wastewater infrastructure. The
Office of Border Environmental Protection regularly participates in binational stakeholder meetings that
discuss BEIF investments, and has also supported grantees in meeting BEIF requirements. To ensure
viability and the highest return on EPA investments, OBEP has compiled recommendations that
help with the management of current and future BEIF projects.

commendations



Over **\$26M dollars** committed in **13 projects**

Bulk are spearheaded by **EPA, CONAGUA, NADB, BECC, IBWC**

participation in Nogales IBWC Binational Technical Committee (BTC) meetings.

urage follow-through on Nogales BTC action items and recommendations.

ation of past performance when scoring projects for new BEIF monies.

Has grantee addressed prior grant contingencies?

Are current actions by the grantee in line with BEIF eligibility criteria?

What's the status of prior-funded projects? Are they sustainable?

rious consideration to new grant contingencies

based on past performance

in the context of new information or changing circumstances on the ground

Thank You



Hans Huth
Hydrologist

Arizona Department of Environmental Quality (ADEQ)
Office of Border Environmental Protection (OBEP)

<http://www.azdeq.gov/obep/>

huth.hans@azdeq.gov

520-628-6711