					MENT - ALTERNATIVE EVALUATION MATR			
Alternative	Projects	Description		-	Implementation and O&M			
			Estimated Cost ¹	Avg. Trans- boundary Flows ² (baseline of 138 days/yr ³)	Technical Feasibility	Operating Complexity	Sustai (i.e., d usa	
А	3a/4a	Diversion of up to 35 mgd to New SBIWTP for Primary Treatment and Discharge to Deep Ocean through SBOO	Implementation: \$78M Annual O&M: \$1.9M/yr Env. Monitoring: \$10M	56 days (61%)				
В	3b/4b	Diversion of up to 100 mgd to New SBIWTP for Primary Treatment and Discharge to Deep Ocean through SBOO	Implementation: \$167M Annual O&M: \$2.9M/yr Env. Monitoring: \$10M	2.9M/yr 20 days (84%)				
С	3c/4c	Diversion of up to 163 mgd to New SBIWTP for Primary Treatment and Discharge to Deep Ocean through SBOO	Implementation: \$246M Annual O&M: \$4.5M/yr Env. Monitoring: \$10M	12 days (91%)	ays (91%)			
D	3c/4d	Diversion of up to 163 mgd to New SBIWTP for Primary Treatment and Discharge to Deep Ocean through SBOO, plus Additional Storage at New San Ysidro Basin	Implementation: \$408M Annual O&M: \$4.8M/yr Env. Monitoring: \$10M	12 days (91%)		\bigcirc		
E	3a/4e	Diversion of up to 35 mgd to Existing SBIWTP for Primary Treatment and Discharge to Deep Ocean through SBOO (per NADB Tijuana River Diversion Study Alternative 4B)	Implementation: \$52M Annual O&M: \$7M/yr Env. Monitoring: \$10M	56 days (61%)				
F	5a/6a	Diversion of up to 20 mgd to Existing SBWRP and Discharge to Deep Ocean through SBOO	Implementation: \$47M Annual O&M: \$1M/yr Env. Monitoring: \$10M	75 days (46%)	,			
G	5b/6b	Diversion of up to 50 mgd to Existing SBWRP and Discharge to Deep Ocean through SBOO	Implementation: \$83M Annual O&M: \$1.5M/yr Env. Monitoring: \$10M	41 days (70%)	,)			
н	7	Pumped Direct Discharge of up to 193 mgd to SBOO without Treatment	Implementation: \$22M Annual O&M: \$1.6M/yr Env. Monitoring: \$10M	9 days (93%)				
I	8	Gravity Flow Direct Discharge of up to 193 mgd to SBOO without Treatment	Implementation: \$87M Annual O&M: \$125K/yr Env. Monitoring: \$10M	9 days (93%)	,			
J	9	Tijuana River In-Stream Water Quality Detention Basin - 20 mgd	Implementation: \$75M Annual O&M: \$200K/yr Env. Monitoring: \$10M	75 days (46%)	\bigcirc			
	² This column	I I for environmental permitting and \$1M/yr for 10 years for envir includes the number of transboundary flow days per year estima Jana River Diversion Study				ach alternative. T	he percer	
		Positive Impact						
	\bigcirc	Moderate Impact						

Negative Impact



centage reflects estimated reduction in transboundary flow days/year from baseline.

Attenuative Projects Description Estimated Cost ¹ Potential Benefit Feasibility K 1/2 Tijuana River Trash Booms and Sedimentation Basins (per IBWC's Tijuana River Basin Feasibility Study) Implementation: TBD Annual O&M: TBD Env. Monitoring: \$10M Removal of 20,500 tons of trash and sediment (5-year) L 10/11a Smuggler's Gulch Trash Boom and In-Line Sedimentation Basin Implementation: \$6.2M Annual O&M: \$1.1M/yr Env. Monitoring: \$10M Removal of 15,600 tons of trash and sediment (5-year) M 10/11b Smuggler's Gulch Trash Boom and In-Line/Off-Line Implementation: \$7M Annual O&M: \$1.1M/yr Removal of 16,100 tons of trash and sediment (5-year)		ION MATRIX (DRA	FT) - 10/24/19						
Attendative Projects Description Estimated Cost ¹ Potential Benefit Feasibility K 1/2 Tijuana River Trash Booms and Sedimentation Basins (per IBWC's Tijuana River Basin Feasibility Study) Implementation: TBD Annual O&M: TBD Env. Monitoring: \$10M Removal of 20,500 tons of trash and sediment (5-year) L 10/11a Smuggler's Gulch Trash Boom and In-Line Sedimentation Basin Implementation: \$6.2M Annual O&M: \$1.1M/yr Env. Monitoring: \$10M Removal of 15,600 tons of trash and sediment (5-year) M 10/11b Smuggler's Gulch Trash Boom and In-Line/Off-Line Implementation: \$7M Annual O&M: \$1.1M/yr Env. Monitoring: \$10M Removal of 16,100 tons of trash and sediment (5-year)	Metrics Implementation and O&M Environmental Community/Societal								
K 1/2 I'juana River Trash Booms and Sedimentation Basins (per IBWC's Tijuana River Basin Feasibility Study) Annual O&M: TBD Env. Monitoring: \$10M tons of trash and sediment (5-year) L 10/11a Smuggler's Gulch Trash Boom and In-Line Sedimentation Basin Implementation: \$6.2M Annual O&M: \$1.1M/yr Env. Monitoring: \$10M Removal of 15,600 tons of trash and sediment (5-year) M 10/11b Smuggler's Gulch Trash Boom and In-Line/Off-Line Implementation: \$7M Annual O&M: \$1.1M/yr Env. Monitoring: \$10M Removal of 16,100 tons of trash and sediment (5-year)	Implementation and (echnical Operating easibility Complexity	Sustainability (i.e., energy usage)	Impact to Habitat (River Valley)		Environmental Justice	Ancillary Community Benefits	Community Disruption	Public Support	
K 1/2 I'juana River Trash Booms and Sedimentation Basins (per IBWC's Tijuana River Basin Feasibility Study) Annual O&M: TBD Env. Monitoring: \$10M tons of trash and sediment (5-year) L 10/11a Smuggler's Gulch Trash Boom and In-Line Sedimentation Basin Implementation: \$6.2M Annual O&M: \$1.1M/yr Env. Monitoring: \$10M Removal of 15,600 tons of trash and sediment (5-year) M 10/11b Smuggler's Gulch Trash Boom and In-Line/Off-Line Implementation: \$7M Annual O&M: \$1.1M/yr Env. Monitoring: \$10M Removal of 16,100 tons of trash and sediment (5-year)				Ratings					
L 10/11a Smuggler's Guich Trash Boom and In-Line Sedimentation Basin Annual O&M: \$1.1M/yr Env. Monitoring: \$10M tons of trash and sediment (5-year) M 10/11b Smuggler's Guich Trash Boom and In-Line/Off-Line Implementation: \$7M Annual O&M: \$1.1M/yr Removal of 16,100 tops of trash and									
M 10/11b Smuggler's Guich Trash Boom and In-Line/Off-Line Annual O&M: \$1.1M/vr tons of trash and			\bigcirc						
Sedimentation Basin Env. Monitoring: \$10M sediment (5-year)									
N 16 Sedimentation and Trash Management in Goat Canyon Annual O&M: \$5M Reduced ongoing cost for use and/or removal of captured sediment and trash									
¹ Includes \$4M for environmental permitting and \$1M/yr for 10 years for environmental monitoring; environmental mitigation is exclude	cluded.								
Positive Impact									
Moderate Impact									
Negative Impact									

			TIJUANA RIVER NEEDS AND OPPORTUNITIES ASSESSMENT - ALTERNATIVE EVALUATION MATRIX							
Alternative	Projects	Description			Implementation and O&M					
			Estimated Cost ¹	Potential Benefit	Technical Feasibility	Operating Complexity	Sustainabil (i.e., enerş usage)			
0	12	Smuggler's Gulch Retrofit Low Flow Diversion	Implementation: \$13M Annual O&M: \$500K/yr Env. Monitoring: \$10M	Diversion of up to additional 30 MGD						
Ρ	13	Smuggler's Gulch In-Stream Water Quality Detention Basin	Implementation: \$44M Annual O&M: \$1.5M/yr Env. Monitoring: \$10M	Diversion of up to additional 163 MGD						
Q	14	Goat Canyon Retrofit Low Flow Diversion	Implementation: \$15M Annual O&M: \$500K/yr Env. Monitoring: \$10M	Diversion of up to additional 30 MGD						
R	15	Goat Canyon Retrofit In-Stream Water Quality Detention Basin	Implementation: \$44M Annual O&M: \$1.5M/yr Env. Monitoring: \$10M	Diversion of up to additional 163 MGD						
S	17	Yogurt Canyon Low-Flow Diversion	Implementation: \$14M Annual O&M: \$500K/yr Env. Monitoring: \$10M	Diversion of up to additional 30 MGD						
Т	18	Yogurt Canyon Pilot Channel	Implementation: \$9M Annual O&M: \$5K/yr Env. Monitoring: \$10M	Reduce sediment and freshwater impacts to TJR Estuary; reduce flooding on Monument Road						
U	27	Tijuana Estuary Tidal Restoration Program (TETRP)	Implementation: \$200M Annual O&M: TBD Env. Monitoring: \$10M	Provides increased function of ecological wetland processes						
	l ¹ Includes \$4M	for environmental permitting and \$1M/yr for 10 years for	environmental monitoring; e	environmental mitigation	n is excluded.					
		Positive Impact								
	\bigcirc	Moderate Impact								
		Negative Impact								
	_									

