



Potential Projects in the Main Tijuana River

| No. | PROJECT TITLE | PROJECT DESCRIPTION | ESTIMATED PROJECT COST | PROS (+) | CONS (-) | OTHER |
|-----|---|---|--|--|--|--|
| 1 | Tijuana River Trash Booms | Install trash capture devices (booms) across the span of the Tijuana River just upstream of the transition from a concrete to earthen channel (within IBWC's flood control channel). The booms would catch trash as it enters the United States side of the Tijuana River, and would require frequent maintenance. This project is currently being analyzed by IBWC through a feasibility study, as well as a conceptual study by Surfrider. | <ul style="list-style-type: none"> Est. Implementation Cost: <\$5M Est. Ongoing Cost: <\$2.5M/year | <ul style="list-style-type: none"> Can be incorporated into other projects (e.g. sediment basins, water quality diversions, etc.) Reduces impacts to natural areas downstream of Dairy Mart Road Simple, effective device not associated with increased flood risk | <ul style="list-style-type: none"> Potential to impact border security operations Sizing of infrastructure challenging due to the unpredictability in the type and volume of trash Frequent ongoing maintenance required, and access can be complicated during rainy season | <ul style="list-style-type: none"> Amount of trash captured will depend on the peak, velocity, and duration of storm flows |
| 2 | Tijuana River Sedimentation Basins | Construct sedimentation basins either within or adjacent to the Tijuana River, upstream of Dairy Mart Rd. The basins would capture flows and allow sediment to settle into the basins to reduce sewage and sediment inflow into the downstream portions of the Tijuana River. This project would result in the retention of polluted runoff for a period of time. The basins could also incorporate green technology to remove contaminants from the water. These facilities would require frequent maintenance. This project is currently being analyzed by IBWC through a feasibility study, as well as a conceptual study by Surfrider. | <ul style="list-style-type: none"> Est. Implementation Cost: \$50-100M Est. Ongoing Cost: <\$5M/year | <ul style="list-style-type: none"> Potential to increase sediment capture east of Dairy Mart Road, which protects sensitive downstream habitat Can be configured to also capture trash and sewage | <ul style="list-style-type: none"> Limitations on how much sediment can be captured based on available land for basins Requires ongoing maintenance and sediment disposal Access for maintenance can be complicated during rainy season Requires significant environmental analysis and permitting | <ul style="list-style-type: none"> Existing river channel upstream of Dairy Mart Road currently acts as a type of natural basin trapping sediment from moving downstream |
| 3 | New Lift Station to Divert Flows to SBIWTP | Provide a new lift station to divert up to 100 mgd to the existing South Bay International Wastewater Treatment Plant (SBIWTP) for primary treatment before discharging to South Bay Ocean Outfall (SBOO). This project is currently being considered (for up to 35 mgd diversion) in the ongoing Tijuana River Diversion Study (Infrastructure Assessment and Development) sponsored by USEPA, IBWC, NADB, CESPT and CONAQUA. The SB 507 NOA is considering diversions up to 100 mgd, along with additional treatment (see Project 4). | <ul style="list-style-type: none"> Est. Implementation Cost: ~\$16M - \$45M Est. Ongoing Cost: ~\$2.5M/yr-\$5M/yr Note: Range depending on diversion option | <ul style="list-style-type: none"> Could provide backup to capture flows and spills not captured upstream in Mexico Can be sized to divert up to 100 million gallons per day (mgd) Potential to divert more than 100 mgd for treatment or disposal if additional storage is provided (e.g., new basin at the sod farm) Potential to reduce impacts to downstream river, estuary, and beaches | <ul style="list-style-type: none"> Limited capacity to divert flows during rainy season (only up to the 1-year rain event) Requires construction of new infrastructure Requires ongoing maintenance to be effective Adding storage capacity at the sod farm may create impacts to surrounding areas and border security Requires significant environmental analysis and permitting | <ul style="list-style-type: none"> USEPA Tijuana River Diversion Study has evaluated the construction of a new diversion facility to primarily address flows that occur during dry weather This project would need to be built in conjunction with Project 4 since the diverted flows would need to be sent somewhere |
| 4 | New Storm Water Treatment Facility at IBWC SBIWTP | Provide a new treatment facility at IBWC's SBIWTP to handle up to 100 mgd of stormwater flow and provide primary level of treatment. This would allow for some limited wet weather diversion volumes to be routed for treatment. This project is currently being assessed by the SB 507 NOA. | <ul style="list-style-type: none"> Est. Implementation Cost: ~\$80M Est. Ongoing Cost: <\$3 M/year | <ul style="list-style-type: none"> Provides new treatment facility for additional captured flows Land is available at IBWC SBIWTP to accommodate up to 100 mgd of treatment Can be sized to treat up to 100 mgd Could provide advanced primary treatment of flows from small rain events Utilizes existing available space at IBWC SBIWTP | <ul style="list-style-type: none"> Requires construction of new treatment plant Requires ongoing maintenance to be effective Requires significant environmental analysis and permitting | <ul style="list-style-type: none"> Building a new treatment facility in extra space adjacent to the existing IBWC sewage treatment plant A separate treatment plant is needed that does not combine stormwater flows with existing influent to the treatment plant to maintain integrity of the existing treatment process |
| 5 | New Lift Station to Divert Flows to SBWRP | Provide a new lift station to divert up to 50 mgd of stormwater flow to the existing City of San Diego South Bay Water Reclamation Plant (SBWRP) for treatment (primary and possibly secondary) before discharging to the SBOO (see Project 6). This project is currently being assessed by the SB 507 NOA. | <ul style="list-style-type: none"> Est. Implementation Cost: <\$23M Est. Ongoing Cost: <\$3M/yr | <ul style="list-style-type: none"> Could provide backup to capture flows and spills not captured upstream in Mexico Potential to reduce impacts to downstream river, estuary, and beaches | <ul style="list-style-type: none"> Limited capacity to divert flows during rainy season (only up to 1-year rain event) Requires construction of new infrastructure Requires ongoing maintenance to be effective Maximum diversion limited to 50 mgd based on available space at SBWRP Requires significant environmental analysis and permitting | <ul style="list-style-type: none"> Similar to Project 3; however, will treat less volume This project would need to be built in conjunction with Project 6 since the diverted flows would need to be sent somewhere |
| 6 | Expand Primary Treatment Capacity at City of San Diego SBWRP | Provide additional primary treatment for up to 50 mgd of wet weather flow at SBWRP. This expansion would allow for the potential to treat low flow runoff. This project is currently being assessed by the SB 507 NOA. | <ul style="list-style-type: none"> Est. Implementation Cost: \$40M Est. Ongoing Cost: <\$2.5 M/year | <ul style="list-style-type: none"> Provides new advance primary treatment capacity for additional flow diversions to work with existing treatment infrastructure Can be sized to treat up to 50 mgd Could provide treatment of diverted dry weather flows Utilizes existing available space at City of San Diego SBWRP | <ul style="list-style-type: none"> High risk of disrupting existing treatment process due to combined flows and lack of pretreatment Requires significant new infrastructure Requires ongoing maintenance to be effective Requires significant environmental analysis and permitting Potential to limit future expansion of facility for City's Pure Water recycling program or additional wastewater treatment | <ul style="list-style-type: none"> Expansion of existing infrastructure due to limited space, not building a new facility (as proposed in Project 4) |
| 7 | Pumped Direct Discharge to SBOO without Treatment | Provide a new lift station to divert up to 100 mgd to the existing SBOO with physical sediment and trash screening only (without primary or secondary treatment). The existing SBOO currently has in excess of 100 mgd of unused capacity that could be used in the case of an emergency spill or potentially during minor storm events to capture additional pollutant-laden runoff. This project is currently being considered (for up to 35 mgd) in the ongoing Tijuana River Diversion Study (Infrastructure Assessment and Development) sponsored by USEPA, IBWC, NADB, CESPT and CONAQUA. The SB 507 NOA is considering diversions up to 100 mgd. | <ul style="list-style-type: none"> Est. Implementation Cost: <\$16M Est. Ongoing Cost: <\$2.5 M/yr | <ul style="list-style-type: none"> Provides backup diversion of dry weather flows Provides diversion of wet weather flows up to 100 mgd | <ul style="list-style-type: none"> Limited capacity to divert flows during rainy season (only up to 1-year rain event) Requires construction of new infrastructure Requires ongoing maintenance to be effective Potential impacts to the City of San Diego's Ocean Outfall permit compliance because flows entering the outfall would not receive treatment | <ul style="list-style-type: none"> Similar to Projects 3 and 5, but without the associated wastewater treatment process |
| 8 | Gravity Flow Direct Discharge to SBOO w/o Treatment | Provide a new storm drain inlet to divert up to 100 mgd to the existing SBOO with physical sediment and trash screening only (without primary or secondary treatment). The existing SBOO currently has in excess of 100 mgd unused capacity that could be used in the case of an emergency spill or potentially during minor storm events to capture additional pollutant laden runoff. This project is currently being considered (for up to 35 mgd) in the ongoing Tijuana River Diversion Study (Infrastructure Assessment and Development) sponsored by USEPA, IBWC, NADB, CESPT and CONAQUA. The SB 507 NOA is considering diversions up to 100 mgd. | <ul style="list-style-type: none"> Est. Implementation Cost: <\$15M Est. Ongoing Cost: <\$1M/year | <ul style="list-style-type: none"> Provides backup diversion of dry weather flows Provides diversion of wet weather flows up to 100 mgd | <ul style="list-style-type: none"> Limited capacity to divert flows during rainy season (only up to 1-year rain event) Requires ongoing maintenance to be effective Potential impacts to the City of San Diego's Ocean Outfall permit compliance because flows entering the outfall would not receive treatment | <ul style="list-style-type: none"> Similar to Projects 3, 5 and 7, but without the need for a pump or the associated wastewater treatment process |
| 9 | Tijuana River In-Stream Water Quality Detention Basin | Construct a basin to capture flows just upstream of Hollister Avenue. The basin would capture flows that are bypassed from the upstream proposed sedimentation basins (see Project 2). The basin would include an in-line weir and new pump for routing flows into a sub basin to pump flows into a force main into either SBIWTP, SBWRP or directly into SBOO. This project is currently being assessed by the SB 507 NOA. This project may require increasing capacities to either of the treatment plants (see Projects 4 and 6). | <ul style="list-style-type: none"> Est. Implementation Cost: \$15M Est. Ongoing Cost: \$200K/year | <ul style="list-style-type: none"> Provides additional storage volume for dry weather flows that are not captured upstream Could provide opportunity for natural or biological treatment options Could divert to existing or larger proposed treatment facilities discussed in Projects 4 and 6 | <ul style="list-style-type: none"> Requires construction of new infrastructure Requires ongoing maintenance to be effective Requires significant environmental analysis and permitting A portion of the river would be used to capture pollution | <ul style="list-style-type: none"> Project concept considers this project as being in the vicinity of the Hollister Street Bridge Similar concept to Project 13 in Smuggler's Gulch and Project 15 in Goat Canyon |



Potential Projects in the Canyon Drainages

| No. | PROJECT TITLE | PROJECT DESCRIPTION | ESTIMATED PROJECT COST | PROS (+) | CONS (-) | OTHER |
|-----|---|--|--|--|--|---|
| 10 | Smuggler's Gulch Trash Booms | Installation and management of trash devices (booms) across Smuggler's Gulch, downstream of existing collector structure. The booms would catch trash as it enters the United States side via Smuggler's Gulch. Alter Terra has funding to install the trash booms in coordination with the County (see Project 19 for Trash Management component). | <ul style="list-style-type: none"> Est. Ongoing Cost: \$100k/year | <ul style="list-style-type: none"> Would provide similar benefits as the existing Goat Canyon trash booms Can be incorporated into other projects Reduces impacts to natural areas downstream of Monument Road | <ul style="list-style-type: none"> Sizing of infrastructure challenging due to the unpredictability in type and volume of trash Too much flow can wash out the trash capture infrastructure Active maintenance is critical to maximizing trash capture | <ul style="list-style-type: none"> Pilot project in progress |
| 11 | Smuggler's Gulch Sedimentation Basins | Construct a sedimentation basin(s) within Smuggler's Gulch. The basins would capture flows and allow sediment to settle into the basins to reduce sediment inflow into Smuggler's Gulch. This project would reduce the need for ongoing dredging of the channel downstream of Monument, as well. <ul style="list-style-type: none"> Alt. 1: construct an in-line basin south of Monument Road, increase capacity of the road culvert, and elevate the road to 5-yr flood level. Alt. 2: add an off-line basin to Alternative 1 to capture fine sediments and reduce overbank flooding north of the road. Alt. 3: modification of Alternative 1 with two sequential in-line basins. This project is currently being assessed by the SB 507 NOA. | <ul style="list-style-type: none"> Est. Implementation Cost Alt 1: \$2.2 M; Alt 2: \$3M; Alt 3: \$2.6M Est. Ongoing Cost: \$1M/year | <ul style="list-style-type: none"> Would reduce excess sediment reaching the Tijuana River Valley Provides benefits to natural hydrology Could be designed to capture trash and sewage Potential to increase the capture of sediment upstream of Monument Road Reduces the need for dredging downstream of Monument Road Simple, effective device not associated with increased flood risk | <ul style="list-style-type: none"> Requires ongoing maintenance to be effective Potential to become a vector or smell nuisance if not properly maintained Maintenance access can be complicated during rainy season Requires significant environmental analysis and permitting | <ul style="list-style-type: none"> Would provide similar benefits as the existing Goat Canyon sediment basins Currently the City of San Diego and County of San Diego have ongoing sediment removal programs to prevent flooding Current programs have limitations due to resources, permitting, and weather conditions Replacement of existing Monument Road culvert would reduce localized flooding |
| 12 | Smuggler's Gulch Retrofit Low Flow Diversion | Increase the low flow diversion and conveyance capacity at Smuggler's Gulch including re-constructing the outlet ponding basin to prevent dry-weather flows from flowing downstream. This project is currently being assessed by the SB 507 NOA. This project may require increasing capacities to either of the treatment plants (see Projects 4 and 6). | <ul style="list-style-type: none"> Est. Implementation Cost \$4M Est. Ongoing Cost: \$100k/year | <ul style="list-style-type: none"> Increases capacity of existing facility for treatment Increases capture of sewage spills in dry weather | <ul style="list-style-type: none"> May require additional treatment capacity or direct discharge to the South Bay Ocean Outfall | <ul style="list-style-type: none"> Could be constructed to maximize capacity of existing infrastructure or, if needed, build new infrastructure Current facility is maintained by IBWC Similar to Project 14 |
| 13 | Smuggler's Gulch In-Stream Water Quality Detention Basin | Construct a basin to capture flows just downstream of Monument Road. The basin would capture flows bypassed from the proposed sedimentation basin upstream. The basin would include an in-line weir and a new pump to route flows via a force main into either SBIWTP, SBWRP or directly into SBOO. This project is currently being assessed by the SB 507 NOA. This project may require increasing capacities to either of the treatment plants (see Projects 4 and 6). | <ul style="list-style-type: none"> Est. Implementation Cost \$8M Est. Ongoing Cost: \$100k/year | <ul style="list-style-type: none"> Provides additional infrastructure to capture flows that bypass facility at border Could provide opportunity for natural or biological treatment options Could send flows to existing or proposed treatment facilities | <ul style="list-style-type: none"> Requires construction of new infrastructure Requires ongoing maintenance to be effective Requires significant environmental analysis and permitting | <ul style="list-style-type: none"> Project concept considers this project as being in the vicinity of the Monument Road bridge Similar to Project 9 in the main river channel and Project 15 in Goat Canyon |
| 14 | Goat Canyon Retrofit Low Flow Diversion | Increase the low flow diversion and conveyance capacity at Goat Canyon including re-constructing the outlet ponding basin to prevent dry-weather flows from flowing downstream. This project is currently being assessed by the SB 507 NOA. This project may require increasing capacities to either of the treatment plants (see Projects 4 and 6). | <ul style="list-style-type: none"> Est. Implementation Cost \$4M Est. Ongoing Cost: \$50k/year | <ul style="list-style-type: none"> Increases capacity of existing facility for treatment Increases capture of sewage spills in dry weather | <ul style="list-style-type: none"> May require additional treatment capacity or direct discharge to the South Bay Ocean Outfall | <ul style="list-style-type: none"> Could be constructed to maximize capacity of existing infrastructure or, if needed, build new infrastructure Current facility is maintained by IBWC Similar to Project 12 |
| 15 | Goat Canyon Retrofit In-Stream Water Quality Detention Basin | Retrofit an existing sedimentation basin to capture sewage flows. The basin would be deepened to create ponding towards the downstream end of the series of basins. A new pump and force main would route these flows to a treatment plant or directly into SBOO. This project is currently being assessed by the SB 507 NOA. This project may require increasing capacities to either of the treatment plants (see Project 4 and 6). | <ul style="list-style-type: none"> Est. Implementation Cost \$6M Est. Ongoing Cost: \$50k/year | <ul style="list-style-type: none"> Potential to provide additional storage volume for dry weather flows that are not captured upstream Could provide opportunity for natural or biological treatment options Could divert to existing or larger proposed treatment facilities | <ul style="list-style-type: none"> Requires construction of new infrastructure Requires ongoing maintenance to be effective Requires significant environmental analysis and permitting | <ul style="list-style-type: none"> Similar to Project 9 in the main river channel and Project 13 in Smuggler's Gulch Location of this project would be at the sedimentation basins currently managed by California State Parks |
| 16 | Sedimentation and Trash Management in Goat Canyon | California State Parks operates two existing sedimentation basins and trash booms in Goat Canyon. Funding for long-term operation and maintenance of these facilities is necessary to keep trash and sediment from flowing into the Tijuana River and Estuary. This project is currently being assessed by the SB 507 NOA. | <ul style="list-style-type: none"> Est. Ongoing Cost: <\$5M/year | <ul style="list-style-type: none"> Identify ways to optimize the management of captured trash and sediment Could reduce annual maintenance costs Potential for reuse as sand supply for beach replenishment | <ul style="list-style-type: none"> Identifying efficient options for sediment disposal or segregation for reuse is challenging | <ul style="list-style-type: none"> Location of this project is at the sedimentation basins currently managed by California State Parks Current program has limitations due to resources, permitting, and weather conditions |
| 17 | Yogurt Canyon Low-Flow Diversion | There is no infrastructure to divert and treat flows at Yogurt Canyon. Feasibility Studies are required to assess the feasibility of installing low-flow diversions to divert flows back to existing treatment facilities. (Similar to Smuggler's Gulch and Goat Canyon, as well as other tributaries) This project is currently being assessed by the SB 507 NOA. | <ul style="list-style-type: none"> Est. Soft Cost (feasibility study): \$250-500k Est. Implementation & Ongoing Cost: TBD based on feasibility studies | <ul style="list-style-type: none"> Provide dry weather flow capture infrastructure similar to current systems at Smuggler's Gulch and Goat Canyon | <ul style="list-style-type: none"> Potential for limited impact to reducing pollution Requires construction of new infrastructure Requires ongoing maintenance to be effective May require additional treatment capacity or direct discharge to the South Bay Ocean Outfall | <ul style="list-style-type: none"> Drainage area is relatively small compared to Smuggler's Gulch and Goat Canyon Yogurt Canyon currently flows directly to Estuary |
| 18 | Yogurt Canyon Pilot Channel | A 25 foot wide pilot channel is considered to convey Yogurt Canyon flows and sediments up to a 5-year flood frequency. The pilot channel would cross Monument Road under a clear-span bridge. The floodplain would be confined north of the road on the eastern side by a berm that is 900 feet long and 3 feet high. This project is currently being assessed by the SB 507 NOA. | <ul style="list-style-type: none"> Est. Implementation Cost <\$500K Est. Ongoing Cost: <\$50K/year | <ul style="list-style-type: none"> Would reduce sediment and freshwater impacts to Estuary Provides conveyance of sediment and flood flows directly to the ocean Would reduce flooding impacts to Monument Road up to a 5-year event | <ul style="list-style-type: none"> Requires further studies to determine cost and benefits Requires significant environmental analysis and permitting | <ul style="list-style-type: none"> Little information exists for Yogurt Canyon so there is very little known about sediment |



Other Potential Projects in the Watershed

| No. | PROJECT TITLE | PROJECT DESCRIPTION | ESTIMATED PROJECT COST | PROS (+) | CONS (-) | OTHER |
|-----|---|---|--|---|--|---|
| 19 | Brown Property Restoration | Remove or adjust fill materials within a specific property to reestablish previous hydrologic flow conditions in this portion of the Tijuana River. This project is currently undergoing design and environmental review by the County. | <ul style="list-style-type: none"> Est. Implementation Cost: <\$3.5M Est. Ongoing Cost: \$100-\$250k/year | <ul style="list-style-type: none"> Reduce impacts to main river channel from historic waste materials used to fill in the property that have caused narrowing of the river Planning phase is funded and in progress Potential for water quality, habitat, and/or hydrology benefits | <ul style="list-style-type: none"> Potential for a low return on investment | <ul style="list-style-type: none"> The County of San Diego is currently analyzing different options for restoration and conducting a cost benefits analysis |
| 20 | Nelson Sloan Quarry Restoration | Beneficially reuse sediment from existing Goat Canyon sedimentation basins to restore a former mine site. The project considers alternatives that take into account material import sources, material stockpiling, material sorting, material export, fill plan, restoration plan, project boundaries, operations and management structure, and estimated costs. This project is currently undergoing design and environmental review by the California State Parks in coordination with the County. | <ul style="list-style-type: none"> Est. Implementation Cost: \$1M Estimated ongoing cost: \$3M/year | <ul style="list-style-type: none"> Provides limited storage capacity for existing sediment removal efforts Planning phase is funded and is in progress | <ul style="list-style-type: none"> Would not provide a long-term solution for sediment disposal needs Implementation phase is not funded | <ul style="list-style-type: none"> The County of San Diego owns the property and is coordinating with the California State Parks to conduct the design and environmental for this project. |
| 21 | Invasive Species Removal & Restoration | Invasive plant species have increased in abundance in the Tijuana River Valley facing infestation from an invasive beetle (shot-hole borer). There are plans to remove these invasive species and restore native habitat and help restore the natural hydrology in the river valley. The County has identified multiple sites for restoration. | <ul style="list-style-type: none"> Est. Implementation Cost: \$5-10M Estimated ongoing cost: \$100-\$250k/year | <ul style="list-style-type: none"> Provides restoration of habitat to support sensitive species Could provide restoration of the natural hydrology Could help in the transport of sediment through the river system Could reduce flooding from smaller storm events | <ul style="list-style-type: none"> Could mobilize existing trash and contaminated sediments Requires ongoing maintenance to be effective Requires significant environmental analysis and permitting | <ul style="list-style-type: none"> The County of San Diego has ongoing restoration activities throughout the valley and is always seeking funding for additional activities |
| 22 | Water Quality Monitoring | Data about water quality across the Tijuana River system is needed to assess water quality conditions and changes over time, which will help determine where additional infrastructure is needed to address water quality issues. Program could include water quality sampling at multiple locations along the main river, from the border to the beach, as well as the tributaries. | <ul style="list-style-type: none"> Estimated ongoing cost <\$1M/year Estimated expanded cost <\$5M/year | <ul style="list-style-type: none"> Could provide real-time flow data at multiple points throughout the Tijuana River Valley Would help in determining impacts to beaches when transboundary flows occur Would help in understanding the transport of pollutants through the valley | <ul style="list-style-type: none"> Requires installation of new equipment Requires ongoing maintenance to be effective | <ul style="list-style-type: none"> The County of San Diego currently does in-person visual observations to confirm if dry weather transboundary flows are reaching the Estuary and beach |
| 23 | Soil Sampling | Data about soil and sediment quality in the Tijuana River downstream of Dairy Mart Rd, as well as in the tributaries, would be needed to determine the potential water quality impacts in the lower river reaches should the soil be disturbed during flood events or river enhancement. | <ul style="list-style-type: none"> Est. Implementation Cost: <\$100K Est. Ongoing Cost: <\$1M/year | <ul style="list-style-type: none"> Provides information on quantity and quality of sediment deposited Could provide information on options for sediment re-use and disposal projects | <ul style="list-style-type: none"> Adequate removal options for existing sediment deposits have not been identified Requires a regional approach to be effective | <ul style="list-style-type: none"> Limited data is available on the quantity and quality of soil depositions in the Tijuana River Valley |
| 24 | Recycling Incentives | Provide incentives for additional recycling of plastics and tires to prevent trash discharge on the Mexico side of the border. An example would be the 4Walls initiative (Border Impact Bond) in cooperation with NAD Bank. 4Walls is promoting investment bond funding with the backing of NAD Bank. Additional funding could potentially come from O&M cost savings on the US side of the border. Although the BIB model assumes a return on investment, an initial investment is required. | <ul style="list-style-type: none"> The six-year plan requires an initial investment of \$3M. | <ul style="list-style-type: none"> Incentivize recycling programs on the Mexico side of the border Provides source control Would ultimately reduce trash crossing the border | <ul style="list-style-type: none"> Limited to plastics and tires Unproven approach | <ul style="list-style-type: none"> 4Walls International is developing and promoting a Border Impact Bond in cooperation with NAD Bank |
| 25 | NGO Clean-up Programs | Continue to promote NGO participation in river/beach clean-up events. Consider partnering with organizations like WILDCOAST and Trash Free Waters to help promote inter-organizational collaboration. | <ul style="list-style-type: none"> Costs likely to be minimal since efforts are primarily volunteer based. | <ul style="list-style-type: none"> Continue support of existing clean-up events within the Tijuana River Valley Engages local community in helping with the removal of the trash Prevents impact to the natural resources | <ul style="list-style-type: none"> Ongoing trash clean-up requires resources Requires volunteer participation to be effective Restricted to areas that can be accessed and safe Some areas are not able to be cleaned up directly along the border due to health hazards and security issues | <ul style="list-style-type: none"> Agencies host large clean-up events and continued to conduct ongoing trash cleanup as part of regular maintenance |
| 26 | Development of Emergency Action Plans | Despite existing and anticipated infrastructure, there are times when the volume of flows is too high and sewage spills occur. In these instances, emergency action plans are needed to identify protocols to address water quality, flooding, sediment, and trash. | <ul style="list-style-type: none"> Estimated soft cost: \$250-500k Est. Ongoing Cost: <\$1M/year | <ul style="list-style-type: none"> Establish improved, agreed upon, emergency action protocols between all agencies Would improve communication and actions during and following an emergency event Would expand emergency communication to include flooding, sedimentation, and trash | <ul style="list-style-type: none"> Requires multi-agency coordination, cooperation, and commitment Requires agreed upon protocols between all agencies | <ul style="list-style-type: none"> Currently IBWC is responsible for communicating to stakeholders when transboundary flows occur in the main stem. |