



SAN ANTONIO
RIVER AUTHORITY

River Basin Report Card

March 29, 2019

COMMITTED TO SAFE, CLEAN, ENJOYABLE CREEKS AND RIVERS



Enable Policy, Projects, and Actions

Apply SARA's expertise and resources to influence, develop, and implement recognized and sustainable improvements to the health and safety of our creeks, rivers, estuaries and bays.





Enhance Community Appreciation and Recreation

Increase public awareness of and engagement with the River Authority.



State of the San Antonio River Basin

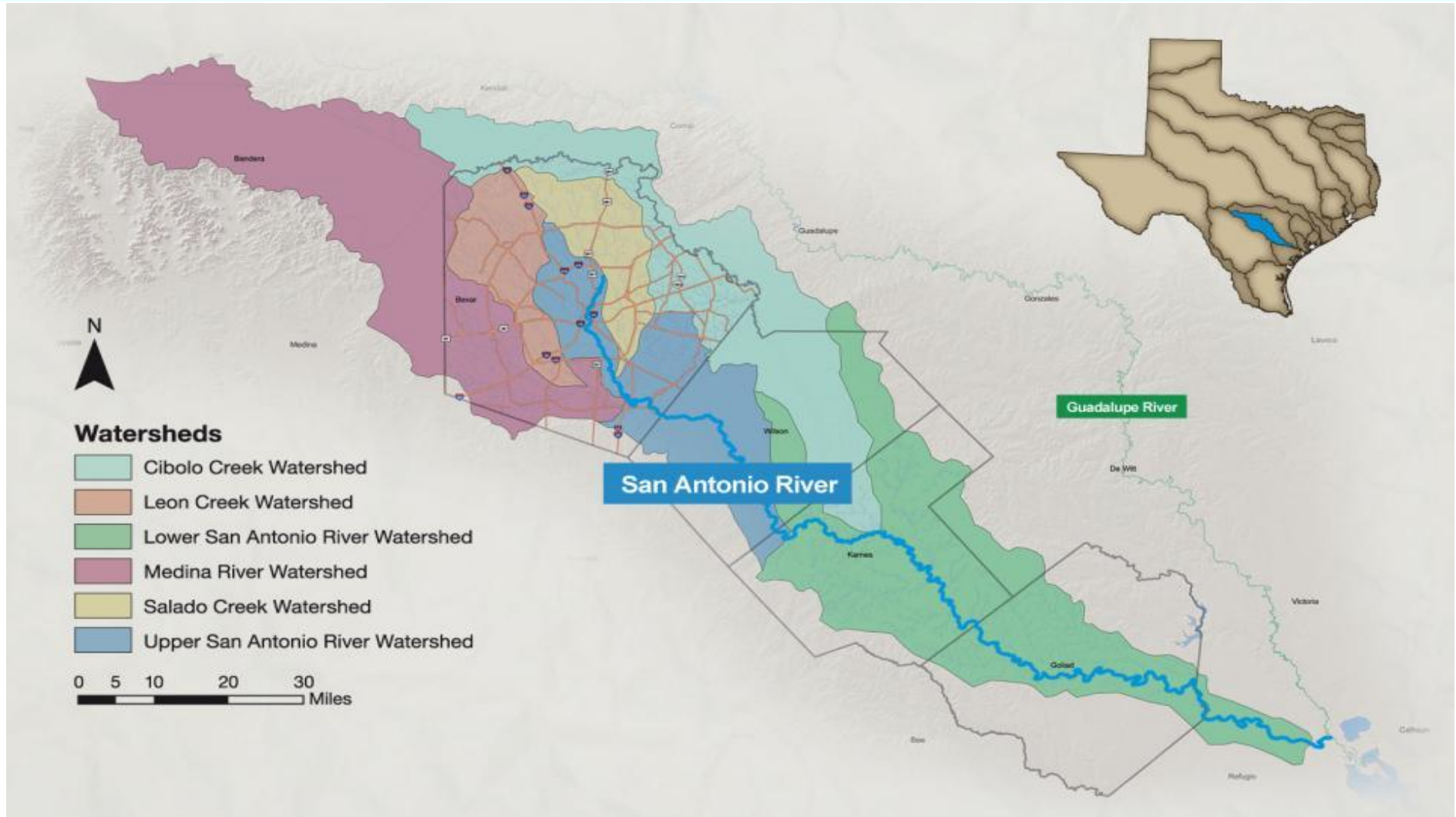
- State of the San Antonio River Basin (i.e. annual report card) is intended to replace the River Health Index (RHI)
- Safe, Clean and Enjoyable indicators
 - Easily accessible data
 - Defensible data and
 - Simple to explain to the laymen public



Anatomy of a Report Card

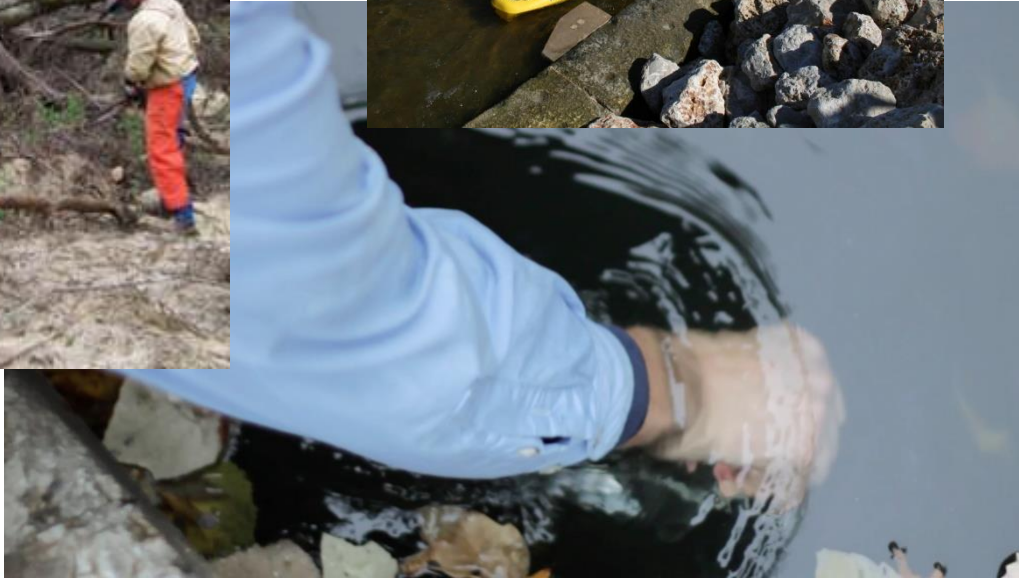
- Report Card will be graphically rich, with significant space devoted to graphics, photos, data maps & graphs that clearly communicate results, processes or issues.





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Anatomy of a Report Card

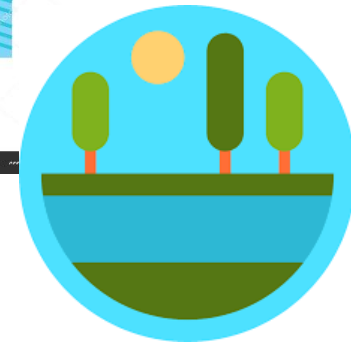


- Key Values & Threats: Provide a section that summarizes the key features and threats addressed in the report card.



Anatomy of a Report Card

- Indicators & Thresholds: Describe the indicators selected to evaluate river basin health.
 - Safe – 6 indicators
 - Clean – 9 indicators
 - Enjoyable – 6 indicators



Anatomy of a Report Card

- Grades & Results: Use a grading scheme and representation that is easy to understand.

- A = 80-100% = Excellent

- B = 60-80% = Good

- C = 40-60% = Moderate

- D = 20-40% = Poor

- F = 0-20% = Failing

- No data



Anatomy of a Report Card

- Findings & Recommendations: Outline what the grades mean, key findings (supported by data) and recommend actions that could be implemented to improve river basin health—which will be reflected in future report cards.
- Encourage Involvement: Suggest how the report card readers can make a difference in their river basins.



Safe Indicators

1. Floodplain maps (includes RiskMAP) – the percentage of stream miles mapped (data usable as best available data) vs. total stream miles available to map in basin.
2. Population with completed floodplain maps – the percentage of population in an area where the stream miles are mapped (data usable as best available data) vs. total population in all areas where stream miles available can be mapped in basin.
3. Flood Models available for emergency responders – the percentage of predictive flood model completed and available for use by the EOC in Bexar County combined with the percentage of updated, best available data floodplain map books provided to floodplain administrators/emergency responders in Wilson, Karnes and Goliad counties, then averaged for a final score.



Safe Indicators

4. Community investment in flood mitigation capital improvement projects (CIP) – using watershed master plans, use a rolling, 10-year review of the total amount of community CIP investment completed divided by total amount of identified need, multiple 100.
5. Riparian Protection – percentage of the known miles of streams restored vs. known miles of streams reviewed and determined to be candidates for restoration.
6. Mission Reach restoration – combine the percent coverage and percent diversity scores for the Mission Reach into one grade.



Clean Indicators

1. Water quality models – the percentage of water quality models completed in basin area (unit of measurement is square miles)
2. Primary Contact Recreation (swimming standard) - Five year rolling geomean at all of our routine CRP water quality monitoring sites. This metric would also be binary, the geomean meets or exceeds the primary contact recreation standard of 126 cfu/100 mL or it doesn't. The grade is determined by taking the number of CRP water quality monitoring sites that meet or exceed the primary contact recreation standard and dividing by the total number of CRP water quality monitoring sites monitored and multiplied by 100.
3. Secondary Contact Recreation (paddling standard) - Five year rolling geomean at all of our routine CRP water quality monitoring sites. This metric would also be binary, the geomean meets or exceeds the secondary contact recreation standard of 206 cfu/100 mL or it doesn't. The grade is determined by taking the number of CRP water quality monitoring sites that meet or exceed the secondary contact recreation standard and dividing by the total number of CRP water quality monitoring sites monitored and multiplied by 100.



Clean Indicators

4. Recreation data – the percentage of weekly recreation data points taken at the “recreation” collection locations that meet the paddling standard.
5. Index of Biotic Integrity (IBI) – use last five years of data for each site monitored by the River Authority. Number of sites meeting designated use divided by total number of sites monitored, multiple 100.
6. Habitat Quality Index (HQI) - use last five years of data for each site monitored by the River Authority. Number of sites meeting designated use divided by total number of sites monitored, multiple 100.



Clean Indicators

7. Estimated reduction of bacteria and Total Suspended Solids (TSS): base line is an average of a rolling 3-year estimated reduction of bacteria and TSS based on the known volume (gallons) of stormwater managed. Grade is determined by taking the estimated reduction of bacteria and TSS from the total volume of stormwater managed this year divided by base line, multiple 100. The grade scores for the estimated bacteria and TSS reduction will be calculated separately and then averaged together to get one final grade for this metric.



Clean Indicators

8. Whooping Crane health – The target of 1,000 is reasonable for downlisting given the historical growth of the AWBP and theoretical considerations of minimum population viability. Therefore, the grade will be determined by dividing the current year bird count by 1000 and multiplying 100.
9. Freshwater Inflows – Based on TCEQ standards of target freshwater inflow volumes reaching the bay for the spring (March-May) and summer (July-September) seasons, the total volume discharged into the bay for both seasons is calculated for each year for the period of record (using a 10-year rolling period). There are 11 Strategy Target Frequency (STF) descriptors. Grade is determined by dividing the number of STFs achieved by the total number of STFs, multiplied by 100.



Enjoyable Indicators

1. Paddling Trails - number of miles of open paddling trail divided by the goal for total number of miles of paddling trail, multiple 100.
2. Paddling – known paddlers from paddling vendors and CTG vs. goal for paddling use from paddling vendors and CTG.
3. Mission Reach trash collection - use average of rolling 3-year trash collections as base line. Subtract total trash collection from this year from base line, divide by base line, multiple 100.



Enjoyable Indicators

4. Number of pedestrians and bicyclists passing the Mission Reach trail counters – use average of rolling 3-year total number of Mission Reach trail counter hits as base line. Total number of trail counter hits this year divided by base line, multiple 100.
5. Number of pedestrians and bicyclists passing the Museum Reach trail counter – use average of rolling 3-year total number of Museum Reach trail counter hits as base line. Total number of trail counter hits this year divided by base line, multiple 100.
6. SARA park attendance – known park attendance from SARA education, recreation, Warrior and events and non-SARA events vs. anticipated park attendance from SARA education, recreation, Warrior and events and non-SARA events.



Grades

- 21 indicators, each receives a numeric and letter grade
- Safe, Clean and Enjoyable each get their own average grade
- Safe, Clean and Enjoyable grades averaged together for overall basin grade
- Qualitative, non-graded “observations” section included as part of the conclusions



Telling the Story

- Released annual beginning this June
- Printed Executive Summary
- Full report online
- Paid and Earned media to promote and drive traffic to online report



Questions

