Quarterly Progress Report

FY 15 Q 2 Entity: TWRI Contract No: 13-30048 & 14-40161 Project Name: Arroyo Colorado WPP Update and Bacteria Modeling Date Sumitted: 3/15/15

| Contractor Project Manager: Jaime Flores | |
|--|------|
| Approval Signature | Date |
| TCEQ Project Manager: Tim Cawthon | |
| Approval* Signature | Date |
| | |

* The TCEQ Project Manager's signature indicates that the QPR is accepted as a project deliverable and also authorizes any changes in deliverable due dates requested in the Deliverables sheet. Approved due date changes should be inserted in the "Current Due Date" column in the next QPR.

QPRs are due to the TCEQ Project Manager by the 15th of the month following each fiscal quarter. Specifically these dates are December 15th, March 15th, June 15th, and September 15th. Fill out appropriate areas and email the Excel workbook to the TCEQ Project Manager. The TCEQ Project Manager will review and either: 1) Approve, sign and date, and e-mail a scanned copy of the approved QPR to the contractor or 2) send back with comments. Once comments have been addressed and a final version is approved, the TCEQ Project Manager will send a signed version of the QPR to the contractor. The Contractor Project Manager must then print the signed version of the QPR and sign and date the cover page. Once signed, the entire QPR must be scanned and sent by e-mail to the TCEQ Project Manager along with the final Excel document.

| | a deliverable <u>is</u> or <u>will be</u> late, a new due date must be proposed. If this is the case, a justification describing the circumstances necessitating the ne Je date must be provided. | | | | ting the new | | |
|------------|--|------------|---|---------------------|--------------|--|--------------------------|
| Project ID | ID# | Sub Task # | Deliverable | Current Due Date | Date Sent | Discussion of Progress Last Quarter (Delete info from prior QPRs, and leave blank if no progress occurred) | Proposed New Due Date |
| 13-30048 | 3947 | 1 | Invoice (FY13Q1) (No expenses) | 12/31/12 | No expenses | | |
| 13-30048 | 2391 | 1 | Invoice (FY13Q2) | 03/31/13 | 03/11/13 | | |
| 13-30048 | 2392 | 1 | Invoice (FY13Q3) | 06/30/13 | 06/14/13 | | |
| 13-30048 | 2393 | 1 | Invoice (FY13Q4) | 09/30/13 | 09/12/13 | | |
| 13-30048 | 2394 | 1 | Invoice (FY14Q1) | 12/31/13 | 05/23/14 | | |
| 13-30048 | 2395 | 1 | Invoice (FY14Q2) | 03/31/14 | 05/23/14 | | |
| 13-30048 | 2396 | 1 | Invoice (FY14Q3) | 06/30/14 | 10/20/14 | | |
| 13-30048 | 2397 | 1 | Invoice (FY14Q4) | 09/30/14 | 10/23/14 | | |
| 13-30048 | 2398 | 1 | Invoice (FY15Q1) | 12/31/14 | 12/12/14 | | |
| 13-30048 | 2399 | 1 | Invoice (FY15Q2) | 03/31/15 | 02/15/15 | | |
| 13-30048 | 2400 | 1 | Invoice (FY15Q3) | 06/30/15 | | | |
| | | | Invoice | | | | |
| 13-30048 | 2401 | 1 | (FY15Q4)(June)*DeleteIfAmended | 07/15/15 | | | |
| 13-30048 | 2402 | 1 | Invoice (FY15Q4)(July)*DeletelfAmended | 08/15/15 | | | |
| 13-30048 | 2403 | | Invoice (FY15Q4)(Aug)*DeleteIfAmended | 09/15/15 | | | |
| 13-30048 | 3959 | | Invoice (FY15Q4)*PendingAmend | 09/30/15 | | | |
| 13-30048 | 3960 | | Invoice (FY16Q1)*PendingAmend | 12/31/15 | | | |
| 13-30048 | 3961 | 1 | Invoice (FY16Q2)*PendingAmend | 03/31/16 | | | |
| 13-30048 | 3962 | 1 | Invoice (FY16Q3)*PendingAmend | 06/30/16 | | | |
| 13-30048 | 3963 | 1 | Invoice (FY16Q4)(June)*PendingAmend | 07/15/16 | | | |
| 13-30048 | 3964 | 1 | Invoice (FY16Q4)(July)*PendingAmend | 08/15/16 | | | |
| 13-30048 | 3965 | | Invoice (FY16Q4)(Aug)*PendingAmend | 09/15/16 | | | |
| 13-30048 | 2377 | | QPR (FY13Q1) | 12/15/12 | | | |
| 13-30048 | 2379 | | QPR (FY13Q2) | 03/15/13 | 03/14/13 | | |
| 13-30048 | 2380 | | QPR (FY13Q3) | 06/15/13 | | | |
| 13-30048 | 2381 | 1.2 | QPR (FY13Q4) | 09/15/13 | 09/16/13 | | |

| | a deliverable is or will be late, a new due date must be proposed. If this is the case, a justification describing the circumstances necessitating the new | | | | | ing the new | |
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| <mark>due date n</mark> | nust be | e provided. | | | | | |
| Project ID | ID# | Sub Task # | Deliverable | Current Due Date | Date Sent | Discussion of Progress Last Quarter (Delete info from prior QPRs, and leave blank if no progress occurred) | Proposed New Due Date |
| 13-30048 | 2382 | 1.2 | QPR (FY14Q1) | 12/15/13 | 12/13/14 | | |
| 13-30048 | 2383 | 1.2 | QPR (FY14Q2) | 03/15/14 | 03/12/14 | | |
| 13-30048 | 2384 | 1.2 | QPR (FY14Q3) | 06/15/14 | 06/17/14 | | |
| 13-30048 | 2385 | 1.2 | QPR (FY14Q4) | 09/15/14 | 09/15/14 | | |
| 13-30048 | 2386 | 1.2 | QPR (FY15Q1) | 12/15/14 | 12/15/14 | | |
| 13-30048 | 2387 | 1.2 | QPR (FY15Q2) | 03/15/15 | 03/15/15 | | |
| 13-30048 | 2388 | 1.2 | QPR (FY15Q3) | 06/15/15 | | | |
| 13-30048 | 2389 | 1.2 | QPR (FY15Q4) | 09/15/15 | | | |
| 13-30048 | 3966 | 1.2 | QPR (FY16Q1)*PendingAmend | 12/15/15 | | | |
| 13-30048 | 3967 | | QPR (FY16Q2)*PendingAmend | 03/15/16 | | | |
| 13-30048 | 3968 | | QPR (FY16Q3)*PendingAmend | 06/15/16 | | | |
| 13-30048 | 3969 | 1.2 | QPR (FY16Q4)*PendingAmend | 09/15/16 | | | |
| 13-30048 | 2404 | 1.3 | Post-Award Mtg | 07/31/12 | 09/11/12 | | |
| 13-30048 | 2421 | 1.4 | Coordination Mtg with EPA | 08/31/15 | | | |
| 13-30048 | 2424 | 1.5 | Annual Report Article | 08/01/15 | | | |
| 13-30048 | 3957 | 2.2 | 1st Monitoring QAPP Annual Certification (90 days prior to anniversary date) | 03/28/14 | Sent | | |
| 13-30048 | 3954 | | 1st Modeling QAPP Annual Certification (90 days prior to anniversary date) | 06/27/14 | | | |
| 13-30048 | 3955 | 2.2 | 1st Aquired Data QAPP Annual Certification (90 days prior to anniversary date) | 08/15/14 | 09/12/14 | | |
| 13-30048 | 3958 | 2.2 | 2nd Monitoring QAPP Annual Certification (90 days prior to anniversary date) | 03/28/15 | | | |
| 13-30048 | 3948 | 2.2 | 2nd Modeling QAPP Annual Certification (90 days prior to anniversary date) | 06/27/15 | | | |

| If a deliver | f a deliverable is or will be late, a new due date must be proposed. If this is the case, a justification describing the circumstances necessitating the new | | | | | | |
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| due date n | nust be | e provided. | | | | | |
| Project ID | ID# | Sub Task # | Deliverable | Current Due Date | Date Sent | Discussion of Progress Last Quarter (Delete info from prior QPRs, and leave blank if no progress occurred) | Proposed New Due Date |
| | | | 2nd Aquired Data QAPP Annual | | | | |
| | | | Certification (90 days prior to | | | | |
| 13-30048 | 3949 | 2.2 | anniversary date) | 08/15/15 | | | |
| | | | | | 7/2/2014, | | |
| | | | | | Partially | | |
| 13-30048 | 2425 | 3.3 | Data Submittal | 12/01/13 | Complete | | |
| 13-30048 | 2426 | 3.4 | Task Report | 11/01/13 | | | |
| 13-30048 | 2427 | 4.4 | Interim Modeling Task Report | 12/01/13 | | | |
| 13-30048 | 2428 | 4.4 | Modeling Task Report | 08/31/14 | | | |
| | | | Modeling input/output files (With Task | | | | |
| 13-30048 | 2429 | 4.4 | Report) | 08/31/14 | | | |
| 13-30048 | 2430 | 5.1 | Steering Committee Meeting (FY15Q1) | 12/31/14 | 10/23/14 | | |
| 13-30048 | 2431 | 5.1 | Steering Committee Meeting (FY15Q2) | 03/31/15 | 02/19/15 | | |
| 13-30048 | 2434 | 5.1 | Work Group Meetings (FY15 1st) | 03/31/15 | 02/19/15 | | |
| 13-30048 | 2432 | 5.1 | Steering Committee Meeting (FY15Q3) | 06/30/15 | | | |
| 13-30048 | 2433 | 5.1 | Steering Committee Meeting (FY15Q4) | 08/31/15 | | | |
| 13-30048 | 2435 | 5.1 | Work Group Meetings (FY15 2nd) | 08/31/15 | | | |
| | | | Steering Committee Meeting | | | | |
| 13-30048 | 3970 | 5.1 | (FY16Q1)*PendingAmend | 12/31/15 | | | |
| | | | Work Group Meetings (FY16 | | | | |
| 13-30048 | 3974 | 5.1 | 1st)*PendingAmend | 02/28/16 | | | |
| | | | Steering Committee Meeting | | | | |
| 13-30048 | 3971 | 5.1 | (FY16Q2)*PendingAmend | 03/31/16 | | | |
| | | | Steering Committee Meeting | | | | |
| 13-30048 | 3972 | 5.1 | (FY16Q3)*PendingAmend | 05/31/16 | | | |
| | | | Work Group Meetings (FY16 | | | | |
| 13-30048 | 3975 | 5.1 | 2nd)*PendingAmend | 08/31/16 | | | |

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| <mark>due date n</mark> | nust be | e provided. | | | | | |
| Project ID | ID# | Sub Task # | Deliverable | Current Due Date | Date Sent | Discussion of Progress Last Quarter (Delete info from prior QPRs, and leave blank if no progress occurred) | Proposed New Due Date |
| | | | Steering Committee Meeting | | | | |
| 13-30048 | 3973 | 5.1 | (FY16Q4)*PendingAmend | 08/31/16 | | | |
| | | | Modeling Updates at Partnership Mtg | | | | |
| 13-30048 | 2437 | 5.2 | (As Appriopriate) | 08/31/15 | | | |
| 13-30048 | 2439 | 5.3 | Annual Newsletter Article | 08/31/13 | 09/16/13 | | |
| 13-30048 | 2440 | 5.4 | Number of website visitors | 08/31/15 | | TWRI continues to maintain the project website and adds content as it is developed. | |
| 13-30048 | 2441 | 5.5 | Task Report (With Final Report) | 05/31/15 | | | 8/31/2015 |
| 13-30048 | 2442 | 6.1 | WPP Assessment Report & Schedule/Plan | 08/31/13 | Sent, but will be revised in future | | |
| 13-30048 | 2443 | 6.2 | Water Quality Graphs (Include with "State of the Watershed" Section Submittal | 01/15/15 | | The water quality graphs have not been completed as we are waiting for the SWAT and W-2 model to be completed. | 7/31/2015 |
| 13-30048 | 2444 | 6.3 | Maps for WPP (Include with WPP Section Submittals) | 08/31/15 | | The WC and the project manager have made a list of maps to be included in the WPP. The list was given to the TWRI GIS team to begin generating the maps on 1/15/15. The first drafts of the maps are scheduled to be completed by 4/31/15. | |
| | | | 2nd Draft WPP (Partial, no modeling | | | | |
| 13-30048 | 4163 | 6.4 | results) | 02/01/15 | 10/26/14 | | |
| | | | 3rd Draft WPP (Partial, no modeling | | | The 3rd draft was reviewed at the WG, SC | |
| 13-30048 | 4164 | 6.4 | results) | 04/01/15 | 02/26/15 | meetings held on 2/19/15 | |
| 13-30048 | 4165 | 6.4 | 4th Draft WPP (Partial, include some modeling results) | 07/01/15 | | | |
| 13-30048 | 4167 | 6.4 | 5th Draft WPP (Full, include modeling results) | 09/01/15 | | | |

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| due date n | nust be | e provided. | | | | | |
| Project ID | ID# | Sub Task # | Deliverable | Current Due Date | Date Sent | Discussion of Progress Last Quarter (Delete info from prior QPRs, and leave blank if no progress occurred) | Proposed New Due Date |
| | | | 6th Draft Final WPP (prior to final | | | | |
| 13-30048 | 4168 | 6.4 | stakeholder review) | 10/15/15 | | | |
| 13-30048 | 2446 | 6.4 | 7th Final WPP | 01/15/16 | | | |
| 13-30048 | 2448 | 7.1 | Draft Final Report | 04/15/16 | | | |
| 13-30048 | 2449 | 7.1 | Final Report | 06/15/16 | | | |
| 14-40161 | 2009 | 1.2 | QPR (FY14Q1) | 12/15/13 | 12/13/13 | | |
| 14-40161 | 2010 | 1.2 | QPR (FY14Q2) | 03/15/14 | 03/11/14 | | |
| 14-40161 | 2011 | 1.2 | QPR (FY14Q3) | 06/15/14 | | | |
| 14-40161 | 2012 | 1.2 | QPR (FY14Q4) | 09/15/14 | 09/15/14 | | |
| 14-40161 | 2013 | 1.2 | QPR (FY15Q1) | 12/15/14 | 12/15/14 | | |
| 14-40161 | 2014 | 1.2 | QPR (FY15Q2) | 03/15/15 | 03/15/15 | | |
| 14-40161 | 2015 | 1.2 | QPR (FY15Q3) | 06/15/15 | | | |
| 14-40161 | 3952 | | QPR (FY15Q4) | 09/15/15 | | | |
| 14-40161 | 3976 | 1.2 | QPR (FY16Q1)*PendingAmend | 12/15/15 | | | |
| 14-40161 | 3977 | 1.2 | QPR (FY16Q2)*PendingAmend | 03/15/16 | | | |
| 14-40161 | 3978 | | QPR (FY16Q3)*PendingAmend | 06/15/16 | | | |
| 14-40161 | 3979 | 1.2 | QPR (FY16Q4)*PendingAmend | 09/15/16 | | | |
| 14-40161 | 2043 | | Invoice (FY14Q1) | 12/31/13 | No expenses | | |
| 14-40161 | 2044 | | Invoice (FY14Q2) | | No expenses | | |
| 14-40161 | 2045 | | Invoice (FY14Q3) | 06/30/14 | | | |
| 14-40161 | 2046 | | Invoice (FY14Q4) | 09/30/14 | | | |
| 14-40161 | 2047 | | Invoice (FY15Q1) | 12/31/14 | 12/16/14 | | |
| 14-40161 | 2048 | 1.3 | Invoice (FY15Q2) | 03/31/15 | | | |
| 14-40161 | 2049 | | Invoice (FY15Q3) | 06/30/15 | | | |
| | | | Invoice | | | | |
| 14-40161 | 2050 | 1.3 | (FY15Q4)(June)*DeleteIfAmended | 07/15/15 | | | |
| | | | Invoice | . , - | | | |
| 14-40161 | 2051 | 1.3 | (FY15Q4)(July)*DeletelfAmended | 08/15/15 | | | |
| | | | Invoice | , _, | | | |
| 14-40161 | 2052 | 1.3 | (FY15Q4)(Aug)*DeleteIfAmended | 09/15/15 | | | |
| 14-40161 | 3980 | | Invoice (FY15Q4)*PendingAmend | 09/30/15 | | | |

| If a deliver | able <u>is</u> | or <u>will be</u> la | ate, a new due date must be proposed. | If this is the | <mark>e case, a just</mark> i | fication describing the circumstances necessitat | ing the new |
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| due date m | nust be | e provided. | | | | | |
| Project ID | | Sub Task # | | Current Due Date | Date Sent | Discussion of Progress Last Quarter (Delete info from prior QPRs, and leave blank if no progress occurred) | Proposed New Due Date |
| 14-40161 | 3981 | | Invoice (FY16Q1)*PendingAmend | 12/31/15 | | | |
| 14-40161 | 3982 | | Invoice (FY16Q2)*PendingAmend | 03/31/16 | | | |
| 14-40161 | 3983 | 1.3 | Invoice (FY16Q3)*PendingAmend | 06/30/16 | | | |
| 14-40161 | 3984 | | Invoice (FY16Q4)(June)*PendingAmend | 07/15/16 | | | |
| 14-40161 | 3985 | 1.3 | Invoice (FY16Q4)(July)*PendingAmend | 08/15/16 | | | |
| 14-40161 | 3986 | | Invoice (FY16Q4)(Aug)*PendingAmend | 09/15/16 | | | |
| 14-40161 | 2020 | 1.4 | Post-Award Mtg | 10/01/13 | 11/13/13 | | |
| 14-40161 | 2022 | 1.4 | Quarterly Communication (FY14Q2) | 02/28/14 | 02/28/14 | | |
| 14-40161 | 2023 | 1.4 | Quarterly Communication (FY14Q3) | 05/31/14 | 04/22/14 | | |
| 14-40161 | 2024 | 1.4 | Quarterly Communication (FY14Q4) | 08/31/14 | 08/31/14 | | |
| 14-40161 | 2025 | 1.4 | Quarterly Communication (FY15Q1) | 11/30/14 | 10/20/14 | | |
| 14-40161 | 2026 | 1.4 | Quarterly Communication (FY15Q2) | 02/28/15 | 12/08/14 | | |
| 14-40161 | 2027 | 1.4 | Quarterly Communication (FY15Q3) | 05/31/15 | | | |
| 14-40161 | 2028 | | Quarterly Communication (FY15Q4) | 08/31/15 | | | |
| 14-40161 | 2029 | 1.5 | EPA Coordination Meeting (TBD) | 08/31/15 | | | |
| 14-40161 | 2031 | | Annual Report Article (If Requested) | 08/01/15 | 11/12/12 | | |
| 14-40161 14-40161 | 2032 2033 | | QAPP Planning Mtg Draft Modeling QAPP | 10/01/13 | 11/13/13 | | |
| | | | | 12/15/13 | 02/20/14 | | |
| 14-40161 | 2034 | 2.2 | Final Modeling QAPP | 02/15/14 | Sent | | |

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|------------|--|------------|--|---------------------|-----------|--|--------------------------|
| Project ID | ID# | Sub Task # | Deliverable | Current Due Date | Date Sent | Discussion of Progress Last Quarter (Delete info from prior QPRs, and leave blank if no progress occurred) | Proposed New Due Date |
| | | | 1st QAPP Annual Certification (90 days | | | | |
| | | | prior to the anniversary date of the | | | | |
| 14-40161 | 3956 | 2.3 | QAPP) | 06/27/14 | 07/14/14 | | |
| | | | 2nd QAPP Annual Certification (90 | | | | |
| | | | days prior to the anniversary date of | | | | |
| 14-40161 | 3953 | 2.3 | the QAPP) | 06/27/15 | | | |
| 14-40161 | 2035 | 3.1 | Data Report | 09/01/14 | | | |
| | | | Model input and calibration and | | | | |
| 14-40161 | 2036 | 3.2 | validation files | 09/01/14 | | | |
| 14-40161 | 2037 | 3.3 | SWAT modeling scenarios | 02/28/15 | 02/19/15 | Scenarios were discussed at the AG, Habitat and ACSC meetings on 2/19/15 | |
| | | | | | | Scenarios to be discussed at ACSC meeting on | |
| 14-40161 | 2038 | 3.4 | H/WQ modeling scenarios | 05/31/15 | | 4/16/15 | 5/31/2015 |
| | | | Draft Modeling Task Integration | | | | |
| 14-40161 | 2039 | 3.5 | Report | 07/01/15 | | | |
| 14-40161 | 2040 | 3.5 | Final Modeling Task Integration Report | 08/01/15 | | | |
| 14-40161 | 2041 | 4.1 | Draft Final Report | 04/15/16 | | | |
| 14-40161 | 2042 | 4.2 | Final Report | 06/15/16 | | | |

| Task/Issue | Additional Description of Quarterly Activities, Milestones, and Issues |
|-------------------------------|--|
| CE-QUAL-W2/SWAT Modeling Task | The CE-QUAL-W2 (W2) modeling of dissolved oxygen (DO) continued to advance but not without appreciable struggles. It was not until the very end of the month that W2 was beginning to function reasonably regarding predictions of the 24- hour variations in DO resulting from eutrophication processes. During the quarter, some issues with tributary input from SWAT containing unrealistic concentrations of some water quality parameters were resolved for the watershed directly contributing to the Tidal segment and below calibration points for SWAT. BREC staff worked hard to resolve these problems and to provide an updated SWAT-W2 Interface code which were all largely resolved by the end of the quarter. A 2 Feb. 2015 project conference call provided direction for our W2 calibration, where the concensus was to push the calibration to the limits and perhaps even a bit beyond in defining kinetic parameters in order to get better calibration of DO. Greater success had occurred by the end of the quarter as a result of this find a suitable funding source that we submit a grant of this nature.ehind schedule but we are finally gaining some momentum on the calibration/validation steps for W2. |
| | The WC organized and hosted three WG meetings, AG, Habitat and Sterring Committee, for the ACWP to discuss and begin to finalize the BMP's and modeling scenarios to include in the next draft of the Update of the ACWPP. Based on the comments from the workgroup meetings, the WC will draft the fourth draft of the Update of the ACWPP. The fourth draft will be reviewed at the next WG meetings to be held next quarter. The summaries of the meetings are attached |
| Arroyo WPP Update Timeline | and will be posted on the AC website |
| Contract Extension | TWRI received a Executed Ammendment for contract 30048 and 40161 on 2/12/15 to extend the contract for one year. The next WG meetings will be held in late April or early May. The WC is working with the WG members to set a date |
| Next Partnership Meeting | that does not interfere with other meetings and conferences scheduled for those dates. |
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| | |

Note: The purpose of this sheet is to provide for an ongoing discussion of tasks to document overall progress and to raise any overall issues that don't relate to specific deliverables.

Note: Please address activities and issues related to contract amendments, budget revisions, and other administrative matters under Task 1.

Arandon Sanchun (1938) Malay Yuana alah Malay Yuana (1940) Kataka Malay Yuana Kataka Malay Sanca (1946) Kataka Malay Sanca (1946) Kataka Malay Sanca (1946)

Explanation for some sector of the source of