

Figure 18-0: Comparison of Impacts on Cultural Resources

Impact CUL-1: Effects on Identified Archaeological Sites Resulting from Construction of Conveyance Facilities (number of documented cultural resources impacted): **8 – Remains significant and unavoidable/adverse.**

Impact CUL-2: Direct and Indirect Effects on Eligible and Potentially Eligible Historic Architectural/Built-Environment Resources Resulting from Construction Activities (number of documented cultural resources impacted): **8 - Remains significant and unavoidable/adverse**

Impact CUL-1: Effects on Identified Archaeological Sites Resulting from Construction of Conveyance Facilities –

RTM Storage and Byron Tract Forebay and Conveyance –

...Because many of these resources are large (typically in excess of 30 meters across), they are each likely to contain sufficient integrity to yield artifacts in their original associations in a manner that will convey the significance themes outlined in the Alternative 4A discussion in Final EIR/EIS Section 18.3.6.2. These resources are likely to qualify as historical resources or unique archaeological resources under CEQA and historic properties under the National Historic Preservation Act (NHPA).”

The mechanisms that could affect archaeological sites would be identical to those described for the approved project in Final EIR/EIS Section 18.3.6.2, Alternative 4A. These resources occur within both temporary work areas and permanent surface impact areas and would be subject to the same types of disturbance described for Alternative 4A in Final EIR/EIS Section 18.3.6.2. Construction of the water conveyance facilities has the potential to materially impair these resources under CEQA and to adversely affect the resources as defined by Section 106 of the NHPA.

NEPA Effects: “Construction may disturb or damage archaeological resources eligible for listing on the National Register of Historic Place (NRHP_ and California Register of Historic Resources (CRHR). This damage may impair the integrity of these resources and thus reduce their ability to convey their significance. For these reasons this effect would be adverse.”

CEQA Conclusion: Construction of the approved project would affect 10 identified archaeological resources, which despite mitigation, would remain a significant and unavoidable impact. The combined facility changes under the proposed project would affect 8 identified archaeological resources that occur in the study area. DWR identified many of these resources and found that they are likely to qualify as historical resources under CEQA..... This impact would be significant because construction could materially alter or destroy the physical integrity of the resource and/or their potential to yield information useful in archaeological research which is Criterion 4 of the CRHR and the likely basis for the significance of these resources. As yet, undocumented archaeological resources may be significant

under other register criteria and would need to be evaluated to determine whether this is the case. If so, indirect effects on these resources may need to be considered if they result in changes to setting in a way that may diminish the significance of the resource in question.

Incremental Impact:” ...because the proposed project would still impact unique archaeological resources or historical resources, the impact associated with this portion of the project would remain significant and unavoidable. Mitigation Measure CUL-1 would reduce this impact by requiring data recovery at affected significant archaeological sites and by requiring monitoring and protection of resources during construction. However, this measure would not ensure preservation of the physical integrity of the resources or ensure that all of the scientifically important material would be retrieved because feasible archaeological excavation only typically retrieves a sample of the deposit, and the portions of the site containing important information may remain after treatment. The impact on identified archaeological sites would be adverse (NEPA) and significant and unavoidable (CEQA) because construction could damage the remaining portions of the deposit, the same as what would result under the approved project. “

“Mitigation Measure CUL-1: Prepare a Data Recovery Plan and Perform Data Recovery Excavations on the Affected Portion of the Deposits of Identified and Significant Archaeological Sites

“See Mitigation Measure CUL-1 under Impact CUL-1 in Final EIR/EIS Chapter 18, Cultural Resources, Section 18.3.5.9”

Per the Table on Level of Significance/Determination of Effects IMPACT AFTER MITIGATION – CEQA – Significant and Unavoidable;

NEPA – IMPACT AFTER MITIGATION – Adverse

Impact CUL-2: Effects on Archaeological Sites to be Identified through Future Inventory Efforts:

RTM Storage

...”These future impacts could occur because most of the area crossed by construction areas; including much of the newly identified RTM areas located within the proposed project footprint but not the approved project footprint; is not currently legally accessible as of the writing of this document and as such has not been surveyed for the presence of archaeological sites. As with the approved project, the proposed project would also require extensive geotechnical testing that could damage or destroy archaeological sites. Although the majority of the study area has not been surveyed, sensitive resources have been located within and near the portions of the alignment that have been surveyed. For this reason, additional archaeological resources are likely to be found in the portions of the study area where surveys have not yet been conducted. For the reasons enumerated for Alternative 4A in Final EIR/EIS Section 18.3.6.2, these sites are likely to qualify as historical resources or unique archaeological resources under CEQA and historic properties under Section 106 of the NHPA. The potential effects on historic site under the proposed project would be the same as those disclosed for the approved project

in Final EIR/EIS Section 18.3.6.2, Alternative 4A. In summary, historic sites are likely to be associated with the historic-era themes of settlement, reclamation, agriculture, and flood management in the Delta region and as such contributed to the economic base for developing urban centers. These historic sites are likely to qualify as historical resources or unique archaeological resources under CEQA and historic properties under Section 106 of the NHPA”

NEPA Effects: The proposed project has the potential to damage previously unidentified archaeological sites. Absent mitigation, ground-disturbing construction would likely physically damage many of these resources by disrupting the spatial associations that convey data useful in research or changing the setting such that the resource no longer contains its significance. Because these sites may qualify for the NRHP or CRHR, damage to these sites may diminish their integrity. These impacts would materially impair these resources within the meaning of CEQA and adversely affect the resources within the meaning of Section 106 of the NHPA. **For these reasons this effect would be adverse.**

CEQA Conclusion: The study area is sensitive for both prehistoric and historic-era resources that cannot be identified at this time because much of the study area is not legally accessible as of the writing of this document. Because many of these resources are likely to have data useful in prehistoric and historic archaeological research, as well as the integrity to convey this significance, they are likely to qualify as historical resources or unique archaeological sites under CEQA. Ground-disturbing construction for both the approved project or the proposed project may materially alter the significance of these resources by disrupting the depositional context of the resource and the spatial relationship between the physical constituents of the resource, both of which are necessary for the purposes of yielding important data under Criterion 4 of the CRHR. As-yet-undocumented archaeological resources may be significant under other register criteria and would need to be evaluated to determine whether this is the case. If so, indirect effects on these resources may need to be considered if they result in changes to setting in a way that may diminish the significance of the resource in question. Mitigation Measure CUL-2 would address the impacts of both prehistoric and historic resources through conducting inventories, evaluating significance, and proposing treatment of archaeological and historic resources as well as monitoring during the construction phase. For these reasons, **the impact would be significant and unavoidable.**

“Mitigation Measure CUL-2: Conduct Inventory, Evaluation, and Treatment of Archaeological Resources:

“See Mitigation Measure CUL-2 under Impact CUL-1 in Final EIR/EIS Chapter 18, Cultural Resources, Section 18.3.5.9”

Per the Table on Level of Significance/Determination of Effects IMPACT AFTER MITIGATION – CEQA – Significant and Unavoidable;

NEPA – IMPACT AFTER MITIGATION - Adverse

Impact CUL-2: Effects on Archaeological Sites to be Identified through Future Inventory Efforts:

Impact CUL-3: Effects on Archaeological Sites that May Not Be Identified through Inventory Efforts:

RTM Storage and Byron Tract Forebay and Conveyance

“...the impact associated with changing the footprint of the water conveyance facilities would remain adverse (NEPA) and significant and unavoidable (CEQA), Mitigation Measure CUL-3 would reduce but not entirely avoid the potential for this impact by requiring implementation of construction worker-training, monitoring, and discovery protocols. However, because archaeological resources may not be identified prior to disturbance through these measure, the effect cannot be entirely avoided.

“Mitigation Measure CUL-3: Implement an Archaeological Resources Discovery Plan, Perform Training of Constructon Workers, and Conduct Construction Monitoring

“See Mitigation Measure CUL-3 under Impact CUL-3 in Final EIR/EIS Chapter 18, Cultural Resources, Section 18.3.5.9”

CUL-3: Implement an archaeological resources discovery plan, perform training of construction workers, and conduct construction monitoring.

Per the Table on Level of Significance/Determination of Effects IMPACT AFTER MITIGATION – CEQA – Significant and Unavoidable;

NEPA – IMPACT AFTER MITIGATION – Adverse

Impact CUL-4: Effects on Buried Human Remains Damaged during Construction:

RTM Stoage and Byron Tract Forebay and Conveyance

Effects on buried human remains during construction under the proposed project would be the same as described for the approved project. As described in greater detail for Alternative 4a in Section 18.3.6.2 of the Final EIR/EIS, the area where construction activities are proposed is sensitive for buried historic and prehistoric human remains. Placement of RTM and construction of the new Byron Tract Forebay and the conveyance leading to the SWP and CVP would require ground-disturbing work such as excavation, and grading and could result in direct effects on buried historic and prehistoric human remains.

Incremental Impact:Mitigation Measure CUL-4 would reduce the severity of this impact by appropriately protecting the integrity of the human remains discovered, but not to a less-than significant level because mitigation would not guarantee that these features could be discovered and treated in advance of construction; the scale of construction makes it technically and economically infeasible to perform the level of sampling necessary to identify all such resources prior to construction. Therefore, this impact would remain significant and unavoidable, as with the approved project.

“See Mitigation Measure CUL-4 under Impact CUL- in Final EIR/EIS Chapter 18, Cultural Resources, Section 18.3.5.9”

CUL-4: Follow state and federal law governing human remains if such resources are discovered during construction.

Per the Table on Level of Significance/Determination of Effects IMPACT AFTER MITIGATION – CEQA – Significant and Unavoidable;

NEPA – IMPACT AFTER MITIGATION – Adverse

Impact CUL-5: Direct and Indirect Effects on Eligible and Potentially Eligible Historic Architectural/Built-Environment Resources Resulting from Construction Activities

RTM Storage & Byron Tract Forebay and Conveyance

“Effects of constructing the water conveyance facilities on built-environment resources under the proposed project would be identical to those described for the approved project. As described in greater detail in Table 18A-2 in Appendix 18A, Identified Cultural Resources Potentially Affected by the Project, a total of 8 built-environment resources have the potential to be directly or indirectly affected by the newly proposed activities associated with relocation of RTM storage areas, and construction of the new Byron Tract Forebay and associated conveyance within the study area. These effects would materially impair the resources within the meaning of CEQA and result in adverse effects within the meaning of NHPA Section 106 because they would diminish the characteristics that convey the significance of the resources.”

NEPA Effects: “The proposed project would result built environment resources. These alternations may diminish the integrity of these resources. For these reasons this effect would be adverse.”

CEQA Conclusion: “The proposed project would result in the same impacts on identified historic-era-built-environment resources as described for the approved project. Impacts on 8 identified built-environment resources would result under the approved project. The same resources would be impacted with construction of the proposed project. These resources have been evaluated for the CRHR and qualify as historic resources under CEQA. Construction of the proposed project may require demolition of the historic built-environment resources, similar to what would result under the approved project. Construction may also result in permanent indirect effects such as changes to the setting, similar to what would result under the approved project. Direct demolition or changes to the setting (both similar to what would result under the approved project_ would be material alternations because they would either remove the resource or alter the resource character, resulting in an inability of the resource to convey its significance. Mitigation Measure UL-5 would reduce the impact by implementing a built environment treatment plan that includes preparing an HSR, assessing preconstruction conditions, implementing protection measures, and preparing HABS/HAER/HALS records, or equivalent documentation, for CRHR and NRHR-eligible historic buildings and structures that will be demolished.”

The impact on historic-era- built-environment resources would remain significant and unavoidable because, even with mitigation, the sale of the project and the constraints imposed by other environmental resources make avoidance of all significant effects unlikely.”

Incremental Impact: ...”Both the approved project and the proposed project would affect eight (*) identified built-environmental resources. Mitigation Measure CUL-5 may reduce the impact by requiring implementation of protective measure and monitoring protocols for historic resources near the project and capturing and preserving a description of the significant information and characteristics associated with directly and adversely impacted resources. However, implementation of the mitigation measure cannot guarantee that effects would be entirely avoided. The scale of the proposed project and the constraints imposed by other environmental resources make avoidance of all significant effects unlikely. For these reasons, this impact would remain the same as under the approved project: adverse (NEPA) and significant and unavoidable (CEQA) even with implementation of Mitigation Measure CUL-5.”

“See Mitigation Measure CUL-5 under Impact CUL-5 in Final EIR/EIS Chapter 18, Cultural Resources, Section 18.3.5.9”

CUL-5: Consult with relevant parties, prepare and implement a built environment treatment plan.

Per the Table on Level of Significance/Determination of Effects IMPACT AFTER MITIGATION – CEQA – Significant and Unavoidable;

NEPA – IMPACT AFTER MITIGATION – Adverse

Impact CUL-6: Direct and Indirect Effects on Unidentified and Unevaluated Historic Architectural/Built-Environment Resources Resulting from Construction Activities

“Effects of constructing the water conveyance facilities on unidentified and unevaluated historic architectural and built-environment resources under the proposed project would be identical to those described for the approved project. Although DWR does not have legal access to the majority of the area where water conveyance facilities would be built, historical documentation suggest numerous additional resources occur in the study area that have not been identified or which cannot currently be accessed and evaluated. Construction activities associated with the relocation of RTM areas, as well as construction of the new Byron Tract Forebay and associated conveyance, may result in the direct demotion of these resources, or indirect effects such as changes to the setting.”

“The resources may exhibit significance under both CEQA and NRHP. In addition, because many of the historic-era structures in the Delta region are intact, and retain their rural agricultural setting, many of these resources are likely to have integrity within the meaning of CEQA and NRHP. Because many unidentified resources are likely to have significance and integrity, they may qualify as historical resources under CEQA and historical properties under Section 106 of the NHPA.

NEPA Effects: The proposed project may result in direct modification or indirect changes to the setting for inaccessible and NRHP and CRHR-eligible resources. These changes may diminish the integrity of

these resources. For these reasons, this effect would be adverse. Mitigation Measure CUL-6 had been adopted but would not fully mitigate these effects, which would remain adverse after mitigation.

CEQA Conclusion: “ Similar to the approved project, construction activities associated with relocation of the RTM storage areas as well as construction of the new Byron Tract Forebay and associated conveyance within the study area may result in permanent indirect effects such as changes to the setting. Direct demolition or changes to the setting would be material alterations because they would either remove the resource or alter the resource character, resulting in an inability of the resource to convey its significance. Many of these resources are likely to qualify as historic properties or historic al resources under the NHPA and CEQA. Mitigation Measure UL-6 would reduce these impacts by requiring surveys be conducted on previously inaccessible properties to determine if constructing the water conveyance facilities would adversely affect the properties and if so, the development and implementation of treatment plans. The scale of the project and the constraints imposed by other environmental resources make avoidance of all significant effects unlikely. “

Incremental Impact: “...The impact under the proposed project would be significant, as would the impact of the approved project. Mitigation Measure CUL-6 would reduce these impacts by requiring that surveys be conducted on previously inaccessible properties to determine if constructing the water conveyance facilities would adversely affect the properties. If adverse effects would result, the mitigation measure requires the development and implementation of treatment plans. The scale of the proposed project and the constraints imposed by other environmental resources make avoidance of all significant effects unlikely. For these reasons, this impact would remain adverse (NEPA) and significant and unavoidable (CEAQ) even with implementation of the Mitigation Measure CUL-6.

“See Mitigation Measure CUL-6 under Impact CUL-6 in Final EIR/EIS Chapter 18, Cultural Resources, Section 18.3.5.9”

CUL-6: Conduct a survey of inaccessible properties to assess eligibility, determine if these properties will be adversely impacted by the project, and develop treatment to resolve or mitigate adverse impacts.

Per the Table on Level of Significance/Determination of Effects IMPACT AFTER MITIGATION – CEQA – Significant and Unavoidable;

NEPA – IMPACT AFTER MITIGATION – Adverse
