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Bradford Island / Reclamation District 2059

Operations and Maintenance Assessment

PRELIMINARY ENGINEER'S REPORT

Prepared for: Reclamation District 2059

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1. Introduction

Background

Reclamation District Number 2059 (RD 2059) encompasses Bradford Island, located in Contra Costa County (County), California. RD 2059's service area is bounded by the San Joaquin River to the north and west, the False River to the south and Fisherman's Cut to the east as shown in **Figure 1**, Assessment Parcel Map. RD 2059 is responsible for maintaining the island's levees and interior drainage. As part of this responsibility, it operates and maintains 7.5 miles of levee around the island, over 7 miles of interior drainage ditches, and a drainage pump station. In addition to maintaining these reclamation works, the District is a member of the Delta Ferry Authority, which provides ferry service from Jersey Island to Bradford Island and Webb Tract.

The District's current assessment to fund operations and maintenance works was approved by property owners in 2010. This assessment has a clause that takes effect after FY 2015/16 wherein the maximum annual assessment rates will revert back to the maximum assessment rates effective in FY 2009/10. As a result of this clause, in FY2016/17 the revenue collected from the reverted assessment rates alone will not be sufficient to cover the District's operations and maintenance expenses. Therefore, the District is proposing a new operations and maintenance assessment to supplement the current assessment. This proposed supplemental operations and maintenance assessment is the subject of this Engineer's Report.

Purpose of Engineer's Report

This Engineer's Report describes, in detail, the methodology for levying an assessment upon parcels that receive special benefit from the operation and maintenance services provided by RD 2059. This assessment will provide additional funds to cover the annual costs incurred for the operation and maintenance of the District's works.

Report Organization

This report is divided into six section. **Section 1** provides the background and purpose; **Section 2** of this report outlines the authorization and process for imposing the proposed assessment; **Section 3** describes the funding plan for operations and maintenance; **Section 4** details the methodology for levying an assessment that is proportional to the special benefits received by each parcel being assessed; **Section 5** describes how the assessment would be administered on an annual basis; and **Section 6** provides the special benefit findings and certification by the Assessment Engineer.

Appendix A provides the annual budget assumed for the purpose of developing the funding plan for RD 2059.

Appendix B provides the cash flow analysis used to evaluate the funding plan for RD 2059

Appendix C provides the schedule of proposed assessments by parcel for FY 2015/16 (the initial maximum annual assessment roll for assessment balloting purposes).



2. Authority and Process

The proposed operations and maintenance assessment would be imposed by RD 2059 under its authority provided in Division 15 of the California Water Code (Water Code). Water Code §51320-51349 sets forth the means by which the District may petition for an assessment to fund the maintenance, repair and operation of the District's works. Under Water Code §51323, the assessment is to be proportional to the benefits derived from the District's continued operation of its works. In addition, all special benefit assessments must also comply with Article XIIID of the State Constitution, commonly referred to as Proposition 218, and the Proposition 218 Omnibus Implementation Act (Government Code §53750 et seq.). These requirements outline the process for imposing the benefit assessment, including the requirement of this Engineer's Report documenting the special benefits conferred by the service provided, the process for imposing the assessment, and property owner approval through a balloting process.

This Engineer's Report has been prepared to:

- 1. Contain the information required pursuant to Water Code §51324.5, including;
 - a. a description of the services proposed to be financed through the revenue derived from the assessment;
 - b. a description of each lot or parcel of property to be subject to the assessment;
 - c. the amount of the proposed assessment for each lot or parcel;
 - d. the basis of the assessment; and,
 - e. the schedule of the assessment;
- 2. Determine the special benefits received from the services provided by the District by benefiting properties; and.
- 3. Assign a method of apportioning the assessment benefiting parcels.

Following submittal of this report to the RD 2059 Board of Trustees (Board) for preliminary approval, the Board may, by resolution, call for an assessment ballot proceeding and public hearing on the establishment of the proposed assessment.

If the Board approves such a resolution, the secretary of the Board will initiate the notice, protest, and hearing procedure required by Government Code §53753 and Article XIIID. A notice and assessment ballot will be mailed to property owners within the District's boundaries. Such notice would include a description of the Services to be funded by the proposed assessments, the proposed assessment amount for each parcel owned, a proposed range of assessment, the duration of the assessment, an explanation of the method of voting on the assessments, and the name and telephone number of the person designated by the Board to answer inquiries regarding the protest hearing. Each notice would also specify the date, time, and place of the public hearing and a summary of the ballot return procedures. Finally, each notice would include a ballot upon which the property owner can mark his or her approval or disapproval of the proposed assessments, as well as affix his or her signature, and a postage prepaid envelope in which to return the ballot.

Landowners will have at least 45 days to return the assessment ballots. On the last day of the balloting period, the public hearing will be held for the purpose of receiving public testimony regarding the proposed assessments. At the public hearing, landowners will have the opportunity to address the Board about the proposed assessment. Ballots must be submitted prior to the close of the public hearing. Landowners may also revise previously submitted ballots prior to the close of the public hearing.



If the votes in favor of the assessment are in the majority (weighted by the proportional financial obligation of the property for which the ballots are submitted), the Board may continue with the process of imposing the proposed assessment and its future levy. If the assessments are so confirmed and approved, the levies would be submitted in future years to the County Auditor Controller for inclusion on the property tax rolls, or RD 2059 may directly bill the property owner for the assessment pursuant to Water Code §§50660, 51515, 51518-51519. As outlined in Government Code §53739, the Board may levy the assessment in future years without conducting a new ballot proceeding so long as the assessments are within the authorized inflation-adjusted range authorized by the original balloting proceeding.



3. Proposed Services and Funding Plan

Services Funded by the Proposed Assessment

The services to be funded by the proposed assessment include all operations and maintenance services that remain unfunded by the existing operation and maintenance assessment, including levee maintenance, drainage ditch maintenance, pump station operations and maintenance, and other activities the District is authorized to perform under the Water Code. In addition to the on-going performance of these services, the proposed assessment will also provide for repayment of accumulated debt from providing these services when the District experienced a significant reduction in assessment revenues.

Annual Budget for Services Provided by RD 2059

The annual revenue and expenses for services that are provided by RD 2059 were reviewed and updated with input from the Board and interested landowners. The annual budgets for FY 2015/16 and FY 2016/17 are included in **Appendix A** and summarized in **Table 1.** The budget reflects RD2059's current expectation of costs based partially on historical expenses and partially on anticipated changes as a result of increased operations and maintenance responsibilities from the proposed Long-Term Maintenance Plan for the on-island mitigation site and the recent levee improvement project. The budget anticipates an increase in activities that will qualify for reimbursement under the Department of Water Resources' Subventions Program. It should be noted that this budget was developed for the purpose of determining the annual revenue required for this proposed assessment. The budget approved by the RD 2059 Board of Trustees may vary from year to year according to actual anticipated expenses and revenues, including payments to the Bank of Stockton to retire current outstanding debt.

Debt Retirement

The District is carrying a significant level of debt in the form of registered warrants (\$185,000 as of June 11, 2015), as a result of several years of reduced assessments and unanticipated, non-reimbursable expenses from the recent levee project. While the District has made substantial progress to collect delinquent assessments, primarily through sale of parcels, and secure additional funds to facilitate the redemption of the outstanding warrants, this proposed assessment includes the ability to collect sufficient revenues to support annual debt payments of up to \$23,000 annually that would facilitate debt retirement within 10 years (by FY 2025/26). It is anticipated that the RD 2059 Board of Trustees will evaluate the total assessment levy (up to an authorized maximum) annually based upon debt retirement needs. However, for the purposes of developing a funding plan to determine the annual revenue requirement, it is assumed that the maximum authorized assessment is levied each year until the outstanding debt is repaid. Should additional revenues materialize in any given year, the Board of Trustees may decide to accelerate debt payments and/or reduce the annual assessment rate. After the debt is repaid, the assessment would continue to be levied at a reduced rate in perpetuity as required to support the District's annual operations and maintenance budget as further discussed in Section 5 "Duration of the Assessment".

Cash Flow Analysis

Appendix B presents the cash flow analysis for the first 10 years of the proposed assessment. The analysis is based on the budget with escalation factors presented in **Appendix A** and redemption of the outstanding warrants within 10 years. The analysis identifies that additional revenue of \$237,000 (based in FY 2015/16 with the maximum 3% annual



escalation) is necessary to pay off the debt within 10 years without experiencing cash shortfall in any given year. Once the debt has been repaid or reserves build to a desired level, the Board would levy a reduced annual assessment based upon future budgeted expenditures.

Table 1 – RD 2059 Budget Summary for FY 2015/16 and FY 2016/17

Fiscal Year	FY 2015-2016	FY 2016-2017
Expenditures		
Subventions Categories	78,000	78,600
General District Expenses	200,120	204,320
DWR Expenditures	0	0
Delta Ferry Authority	158,050	158,050
Other Expenses		
Carr & Ferrell Settlement	10,000	10,000
FEMA/OES Debt from '83 Flood	17,800	0
Demand Warrants (Bank of Stockton)	TBD	TBD
Reserve Contingency	0	0
Subtotal Other Expenses	27,800	10,000
Total Expenditures	\$463,970	\$450,970
Revenues		
400.00 · Current O&M Assessment	303,000	158,100
400.05 · Direct Billed Assessments	11,042	. 0
410.00 · Fees & Permits	0	0
420.00 · Ferry Toll	O	0
430.00 · Misc. Inc Refunds, Int, etc	2,800	2,800
440.00 · Work Agreement DWR Fund	0	0
465.00 · DWR Interest Accrued (Interest Income)	C	0
467.00 · DWR - Added Funding	50,150	50,150
Total Revenues	\$366,992	\$211,050
Net Income	-\$96,978	-\$239,920

Reference: RD 2059 - Appendix A & Table 1 20150603.xlsx



4. Assessment Methodology

General Discussion

Requirements of Proposition 218

To levy an assessment for a property related service such as drainage or flood control, Proposition 218 requires the local agency to:

- Identify the parcels that have special benefits conferred on them by the facility and/or service;
- Calculate the proportionate special benefit for each parcel in relation to the entirety of the Capital and O&M expenses being funded;
- Ensure the assessment does not exceed the reasonable cost of the proportionate special benefit conferred on each parcel; and,
- Separate the general benefits from the special benefits conferred on a parcel.

Special Benefits vs. General Benefits

Proposition 218 requires any local agency proposing to increase or impose a special assessment to "separate the general benefits from the special benefits conferred on a parcel." Cal. Const. art. XIIID §4. The rationale for separating special and general benefits is to ensure that property owners are not charged a special benefit assessment in order to pay for general benefits provided to the general public or to property outside the assessment district. Thus, a local agency carrying out a project that provides both special and general benefits may levy an assessment to pay for the special benefits, but must acquire separate funding to pay for the general benefits. Silicon Valley Taxpayers' Assn., Inc. v. Santa Clara County Open Space Authority, 44 Cal. 4th 431, 450 (2008).

A special benefit is a particular and distinct benefit over and above the general benefits conferred on real property located in the district or to the public at large. The total cost of the services must be apportioned among the properties being assessed based on the proportionate special benefit the properties will receive. Moreover, the governmental agency must demonstrate through a balloting process, weighted to reflect these special benefits, that the ballots submitted in opposition to the assessment do not exceed the ballots submitted in favor of the assessment, weighted according to the proportional financial obligation of the affected property.



In this instance, the operations and maintenance activities of RD 2059 provide a special benefit only to those properties located on Bradford Island. Specifically, all parcels on Bradford Island receive a special benefit from the operations and maintenance of the District's works in the form of:

- Private property access. There are no public roads located on the island. Therefore, only the private property
 owners benefit from access provided to/on the island by the District's maintenance of the access roads and its
 share of the operating costs of the Delta Ferry Authority.
- Drainage. The District maintains a system of drainage ditches and operates one pump station to remove runoff
 and seepage from properties on the island. The removal of surface water prevents nuisance flooding and
 ponding of water that would otherwise limit the usefulness of the properties located on the island.
- Flood damage reduction. The District maintains approximately 7.5 miles of levee that encompass the island.
 Levee maintenance in the form vegetation control, erosion prevention and levee cross restoration provides flood protection for the island. The required maintenance of mitigation land established by prior levee rehabilitation projects is included within Levee maintenance.

The special benefit provided by RD2059's operations and maintenance services vary based on the size and use of the affected parcels. Every parcel contributes to internal drainage system and ultimately to the demand for pumping capacity based upon the parcel's relative size and type of improvement. The size and type of the parcel determine the relative runoff of water from the property.

Flood control and drainage services provide special benefit, not general benefit. As noted above, special benefits are those "particular and distinct over and above general benefits conferred on real property located in the district or to the public at large." Cal. Const. art. XIIID §2(i). Because flood control and drainage works protect particular identifiable parcels (including residents of the parcel and any appurtenant facilities or improvements) from damage due to inundation or force by arising floodwaters, the benefits are provided directly to those parcels, and to none other. By contrast, general benefits provided to the public at large are discussed in terms of general enhanced property values, provision of general public services such as police and fire protection, and recreational opportunities that are available to people regardless of the location of their property. See, e.g., Cal. Const. art. XIIID §§2(i), 6(2)(b)(5); Silicon Valley Taxpayers, 44 Cal. 4th 431. 450–56.

Proposed Assessment Boundary

All parcels within Bradford Island receiving special benefit from the operation and maintenance of the District works are within the boundary of the proposed Assessment. The boundary area and the benefiting properties are shown in **Figure 1**, Assessment Parcel Map.

Land Use Categories

There are multiple land use codes used by the County Assessor to categorize the properties on Bradford Island. Each parcel and its associated land use code was evaluated to create a more generalized land use category for the purpose of apportioning special benefit. **Table 2** summarizes the classification of land use code into broad land use categories, along with number and size of the associated parcels on Bradford Island.



Table 2 - Summary Land Use Categories

Land Use Category CCC Land Use Code	Number of Parcels	Total Acres	Total Square-feet	
Agricultural				
63	4	68.96	-	
65	7	478.40	1,862	
66	8	549.28	1,374	
67	4	75.04	-	
68	1	50.00	950	
69	2	444.41	-	
86	2	185.57	920	
Subtotal Agricultural	28	1,851.66	5,106	
Residential				
11	1	0.37	626	
15	1	0.37	812	
17	1	0.78	-	
61	7	48.84	6,290	
62	18	115.34	-	
Subtotal Residential	28	165.70	7,728	
Government				
79	4	155.03	-	
Subtotal Government	4 [1]	155.03	-	
Mineral Rights				
80	7	1,821.15	4,000	
Subtotal Mineral Rights	7	1821.15	4000	
Totals	67	3,993.53	16,834	

^[1] RD 2059 owned properties which part of the districts reclamation works and therefore excluded from the assessment apportionment.



Special Benefit Calculation

The first step in apportioning special benefit is to identify the special benefit categories to be provided by the proposed assessment and establish the relative weighted benefit appropriate for each special benefit category. The following three special benefit categories are provided by the proposed assessment. Their relative weights are presented in **Table 3**.

- Access Benefit. The District provides access benefit to all property owners on the island through its annual O&M
 activities. The O&M activities directly related to providing access include levee crown shaping and patrol road
 maintenance. Based on the level of effort and associated costs expended by the District on these activities, it
 has been determined that relative weight for the access benefit is 5%.
- 2. Drainage Benefit. The District maintains drainage canals and a pump station to collect and discharge rainfall runoff and general seepage on the island. These efforts provide a benefit to all properties by preventing nuisance flooding and maintaining the usefulness of the property. Based on the level of effort and associated cost expended by the District to maintain adequate drainage, the relative weight for the drainage benefit has been determined to be 70%.
- 3. Flood Damage Reduction Benefit. The remaining operations and maintenance efforts are associated with levee maintenance and erosion control/prevention. These activities support levee safety and stability that results in reduced risk for flood damage to land and structures within the District. Based on level of effort and associated costs expended by the District under the subventions accounts, it has been determined that the relative weight for the flood damage reduction benefit is 25%.

Access Benefit Assessment Rate

Access benefit is provided equally to all parcels regardless of land use, location, or size. Therefore, the assessment rate to each parcel is equal to the assigned relative benefit for access divided by the total number of parcels. **Table 4** shows the apportionment of the access benefit to each parcel.



Table 3 – Special Benefit Categories with Assigned Relative Benefit

Category	Benefit to Property Owners	Benefit Allocation	Relative Benefit
Access	Provides access to properties along levee road.	Equal benefit to each parcel regardless of size or improvements.	5%
Drainage	Prevents nuisance flooding. Maintains usefullness of property.	Allocated to each parcel according to size and runoff coefficient. Mineral rights receive one half the benefit of surface property.	70%
Flood Damage Reduction	Prevent damage to land, crops, structures and equipment.	Allocated to each parcel according to size of property and size of structures.	25%
otal Benefit			100%

Table 4 - Access Benefit Apportionment

Category	Benefit to Property Owners	Relative Benefit	Land Use Category	Relative Access Benefit Factor	Parcel Count	Apportionment per Parcel
Access	Provides access to properties along levee road.	5%	Agricultural Government Mineral Rights Residential	1 1 1 1	28 0 7 28	0.079% 0.000% 0.079% 0.079%
Total Parcels					63	

 $Reference: RD\ 2059 - Benefit\ Allocation\ Model_20150611.x lsx$



Drainage Benefit Assessment Rate

The apportionment of drainage benefit is tied to the quantity of runoff generated and the benefit received from removing runoff by each parcel. The quantity of runoff is a function of the runoff coefficient and the size of the parcel. Upon review of aerial photographs, all parcels have been determined to have similar non-pervious vegetative cover with a similar runoff coefficient. Therefore, regardless of land use type or size, all parcels will generate a similar quantity of runoff per acre. The benefit received from the removal of drainage varies by land use category based on usefulness. The Engineer has made the following determination of the relative weighting of benefit received by land use category.

Agricultural land use was applied as the base for determining the relative benefit for other land use categories. Properties with agricultural land use have been determined to receive similar benefit regardless of size. Therefore, the relative benefit for agricultural land use is 1.0.

Government land use includes the four properties that are owned by the District. Upon review of these properties, it has been determined that these properties have similar characteristics as agricultural land use properties. Therefore, the relative benefit for government land use is 1.0.

Residential land use includes properties that are generally 10 acres or less. These properties were evaluated to determine if the potential use differed from agricultural properties, or if the benefit received differed from agricultural properties. The drainage benefit to residential lands has been determined to be no different than to agricultural lands due to the typical contiguous, adjoining use with agricultural properties. Therefore, the relative benefit for residential land use is 1.0.

Mineral rights land use includes the Assessor's parcels associated with the gas leases that are identified in Book 26, Page 10 of the Contra Costa County Assessor's maps. These parcels also receive a benefit from the collection and discharge of runoff from the overlying land. The benefit received by the underlying mineral rights associated with the usefulness of the surface lands has been determined to be 50% of the benefit apportioned to the surface parcels. This is reflected by using a relative weight of 0.50.

The per acre assessment rate for drainage benefit is calculated by using the following weighted average methodology:

- 1. The weighted value of each land use category is calculated by multiplying the relative land use drainage factor times the total acreage for that particular land use to determine the weighted acres.
- 2. The weighted acres of each land use category are summed to obtain the total weighted acreage of all properties.
- 3. The weighted average for each land use category is then calculated by dividing the relative weight of the land use category by the total weighted acreage.
- 4. The benefit apportionment per acre for each land use is calculated by multiplying the relative benefit for Drainage times the weighted average for the land use category, divided by the total acreage for that particular land use category.

Table 5 provides the assessment rate to each land use category for drainage benefit.



Table 5 - Drainage Benefit Apportionment

Category	Benefit to Property Owners	Relative Benefit	Land Use Category	Relative Land Use Drainage Factor	Acres	Weighted Acreage	Weighted Average Acreage	Apportionment per Acre
	Prevents nuisance							
	flooding.		Agricultural	1.00	1851.66	1851.66	63%	0.0239%
Drainage	Maintains	70%	Government	1.00	0.00	0.00	0%	0.0000%
Diamage	usefullness of	7070	Mineral Rights	0.50	1821.15	910.58	31%	0.0120%
	property.		Residential	1.00	165.70	165.70	6%	0.0239%
Total Weigh	ht Acerage					2927.93		

Flood Risk Reduction Assessment Rate

The apportionment methodology for allocating the flood risk reduction benefit involves assigning a relative weight to land damages and to structure damages. These are then allocated to each parcel based on land use, parcel size, and structure size.

The relative weight between land damages and structure damages is based on an evaluation of the value of the structures on the island compared to the value of potential productive land use. The flood damages to land was determined to be 80% of the total damage to both land and structures due to the limited number of structures on the island. The remaining 20% of the flood damage is associated with the damage to structures.

Similar to the evaluation of drainage benefit, it was determined that the value of the land, and it associated damage, did not vary significantly between land use types. Likewise, the relative benefit for land damage reduction for the underlying mineral rights was determined to be 50% of the benefit to the surface lands. The benefit allocation of land damage reduction was calculated on a per acre basis by multiplying the 20% relative benefit for flood damage reduction by the 80% allocation to land damages and then multiplying by the relative weight by acreage across all land use categories. The methodology for determining the weighted average benefit for Land Flood Damage Reduction is the same used to determine the weighted average benefit for Drainage Benefit, described above. **Table 6** shows the assessment rates per acre for flood damage reduction to land.



Table 6 - Land Flood Damage Reduction Benefit Apportionment

		Dalasti			Per Acre Allocation				
Category	Benefit to Property Owners	Relative Flood Damage	Land Damage Share	Land Use Category	Land Damage Factor	Acres	Weighted Acreage	Weighted Average Acreage	Apportionment per Acre
Flood Damage	Prevent damage to land, crops,	25%	80%	Agricultural Government	1.00 1.00	1,851.66 -	1,851.66 -	63.2% 0.0%	0.0068% 0.0000%
Reduction	structures and equipment.			Mineral Rights Residential	0.50 1.00	1,821.15 165.70	910.58 165.70	31.1% 5.7%	0.0034% 0.0068%
Total Acreage							2,927.93		

Aerial photographs and Contra Costa County Assessor's data was used to evaluate the types and size of structures. After reviewing historic aerial photographs and current photographs, there was evidence that non-residential type buildings are often temporary and should not be included in the apportionment of benefit for the proposed assessment that is intended to fund an ongoing service to be provide on a long term basis. Therefore, only those structures that are included in the Assessor's records are to be included in the proposed assessment. Furthermore, there was no evidence that indicated that the characteristics of these structures varied significantly between land use types. Therefore, a structure on a residential land use parcel will receive the same damage reduction benefit as a structure on an agricultural land use parcel.

In addition to the structures identified in the County Assessor's data, there are eight gas wells registered with the California Department of Conservation's Division of Oil, Gas & Geothermal Resources (DOGGR) that are either in production or idle, but not plugged, on the island. For the purpose of allocating benefit, the footprint of each well was estimated to average approximately 500 square-feet. This is the footprint of the well only and does not include the entire area within the fenced perimeter of each well site. Based on typical infrastructure and equipment associated with each well, the equivalent relative damage reduction per square-foot of well site is estimated to be 10 times that of a habitable structure.

The allocation of structure damage reduction benefit is calculated on a per square-foot basis by multiplying the 20% relative benefit for flood damage reduction by the 20% allocation to structure damages and then multiplying by the relative average weight by square-foot of all structures. The methodology for determining the relative average weight for Structure Flood Damage Reduction is the same as used for Land Flood Damage Reduction, except that structure square footage is used instead of parcel acreage.

Table 7 provides the flood damage reduction assessment rate for structure damages per square-foot across all land use categories.



Table 7 - Structural Flood Damage Reduction Apportionment

		Relative	Damage	Damage Land Use Category	Per Structure Sq-Ft Allocation				
Category	Benefit to Property Owners				Structure Damage Factor	Sq-Ft	Weighted Sq-Ft	Weighted Average Sq-Ft	Apportionment per Sq-Ft
Flood	Prevent damage to land, crops,			Agricultural	1	5,106	5,106	9.7%	0.00009%
Damage	structures and	25%	20%	Government	1	-	-	0.0%	0.00000%
Reduction				Mineral Rights	10	4,000	40,000	75.7%	0.00095%
	equipment.			Residential	1	7,728	7,728	14.6%	0.00009%
Total Square	Feet						52,834		

Assessment Calculation

The total proposed annual assessment required to provide the additional revenue identified in the cash flow analysis is \$265,000. To determine the assessment rate for an individual parcel, the total proposed annual assessment is multiplied by each special benefit apportionment and then multiplied by the associated parcel characteristic. **Table 8** summarizes the assessment rates for each special benefit described above.

Table 8 – Assessment Rates by Land Use Category

Land Use Category	Benefit Access	Drainage Benefit	Land Flood Damage Reduction	Structure Flood Damage Reduction
	\$/parcel	\$/acre	\$/acre	\$/sq-ft
Agricultural	188.10	56.66	16.19	0.22
Government	0.00	0.00	0.00	0.00
Mineral Rights	188.10	28.33	8.09	2.24
Residential	188.10	56.66	16.19	0.22

Reference: RD 2059 - Benefit Allocation Model_20150611.xlsx

The maximum assessment for an individual parcel rate can be expressed by the following formula:

[Max. Annual Assessment] = [Access Benefit Rate] +

([Drainage Benefit Rate] + [Land Flood Damage Reduction Rate])*[Parcel Acreage] +

[Structure Flood Damage Reduction Rate]*[Structure Square Footage]



Maximum Assessment for Small Parcels

In order to further ensure that a relative proportionality exists between all parcels in the district, the Assessment Engineer determined that applying the assessment rates to small parcels was not appropriate. For small parcels 10 acres or less, the proposed assessment per acre became disproportionate to medium and larger sized parcels greater than 10 acres. Therefore, it was determined that a maximum assessment rate of \$90 per acre should be applied to parcels that are 10 acres or less.

Example Assessment Calculations

The following examples illustrate the application of the assessment formula with the rates shown in **Table 8** to determine the annual assessment for three hypothetical properties.

Example 1:

Assumes an agricultural property of 100 acres with an 800 square-foot structure.

```
[Max. Annual Assessment] = [\$188.10] + ([\$56.66/acre] + [\$16.10/acre])*[100 acres] + [\$0.22/sq-ft]*[800 sf-ft]
= \$6,146.29 (\$61.46 per acre)
```

Example 2:

Assume a residential property of 5 acres with an 800 square-foot structure.

```
[Max. Annual Assessment] = [$188.10] + ([$56.66/acre] + [$16.10/acre])*[5 acres] + [$0.22/sq-ft]*[800 sf-ft]

= $668.59 ($133.72 per acre)

[Cap on Small Parcels] = [$90/acre] * [5 acres] = $450

[Max. Annual Assessment] = $450 ($90.00 per acre)
```

Example 3:

Assume a mineral rights property of 400 acres with 1 producing gas well.

```
[Max. Annual Assessment] = [$188.10] + ([$28.33/acre] + [$8.09/acre])*[400 acres] + [$2.24/sq-ft]*[500 sf-ft]
= $13.048.19 ($32.62 per acre)
```



Summary of Assessments

Appendix D provides a detailed listing by Assessor's parcel number of the maximum assessments that will be voted on by the property owners for the proposed assessment. The range of maximum assessments for all parcels and the average assessment by land use category is summarized in **Table 9**.

Table 9 - Range of Assessment by Land Use Category

and Use Category	Minimum	Maximum	Average
Agricultural	\$463.50	\$28,067.80	\$5,655.94
Government	\$0.00	\$0.00	\$0.00
Mineral Rights	\$3,577.46	\$34,491.93	\$12,356.16
Residential	\$33.30	\$2,497.68	\$531.80

Reference: RD 2059 - Benefit Allocation Model_20150611.xlsx



5. Assessment Administration

Implementation

Schedule for Collection

If property owners approve the proposed assessment, the RD 2059 Board intends to commence collection of the assessments in FY 2015/16. The assessment would be collected annually as described further below under "Duration of the Assessment."

The annual administrative expenses of the District would also be funded through the annual levy of assessments. Ongoing administrative expenses would include the annual calculation and preparation of the assessment roll, the actual costs of collecting the annual assessments and the costs of responding to inquiries including the review and processing of any appeals.

Appeals of Assessments Levied to Property

Appeals Process

Any property owner who believes his or her property should be reclassified and the assessment adjusted may file a written appeal with the Chairman of the Board of Trustees of RD 2059 (Chairman) or his or her designee. Any such appeal is limited to correction of an assessment during the then-current fiscal year and for future years.

All appeals must include a statement of reasons why the property should be reclassified, and may include supporting evidence. On the filing of any such appeal, the Chairman of the Board of Trustees or his or her designee will promptly review the appeal and any information provided by the property owner and may investigate and assemble additional evidence necessary to evaluate the appeal. If the Chairman or his or her designee finds that the assessment should be modified, the appropriate changes will be made to the assessment roll. If any such changes are approved after the assessment roll has been filed with the County for collection, the Chairman or his or her designee is authorized to refund the property owner the amount of any approved reduction to the assessment for the then current fiscal year. In the event that an appeal is filed and a subsequent adjustment is resulting in a refund, refunds for any prior year's assessments paid before the appeal was filed will not be made.

If a landowner disputes the decision of the Chairman or his or her designee, a secondary appeal may be made to the RD 2059 Board, which will hold a public hearing on the matter. Any decision made by the Board shall be final.

Impact of Appeals

The majority of the data being used by RD 2059 to generate the assessment rates for specific parcels comes from the County Assessor. Because this data is not maintained by the Assessor in a form designed to support this Special Benefit Assessment effort, RD 2059 staff has worked to refine the data so it properly reflects the conditions present in the physical benefit area. However, throughout the formation period (and indeed even after the formation of the assessment district), data errors and discrepancies with County Assessor data may surface and require modification of the assessment calculation for various parcels. Changes in the data without a corresponding change in the rates established by this report will, by definition, change the total amount of assessments levied and collected in any one year. For example, if the data assumes the existence of a house that has since burned down and not been reconstructed,



once the database is corrected the rates will generate a smaller total assessment. On the other hand, if the data assumes an empty lot where a house has since been constructed, once the database is corrected the rates will generate a larger total assessment. Due to the database being constantly refined (either through internal review or an external appeal process), it is infeasible to fine-tune the rates between the Preliminary Engineer's Report and the Final Engineer's Report. In addition, because changes to the database will either increase or decrease the total amount assessed, it is presumed that these amounts will roughly offset each other. Therefore, although minor changes to the database will continue to be made during the formation period, the rates proposed in this Report are not being fine-tuned, even though that will result in a total assessment which may be slightly less than or slightly more than the amount determined for the development of this report.

Duration of the Assessment

If approved by property owners in an assessment ballot proceeding conducted pursuant to Article XIIID of the State Constitution and Government Code § 53750 et. seq., the assessment can be levied annually commencing with FY 2015/16 and continued every year thereafter. The RD 2059 Board of Trustees will establish the assessment rate each year and while the assessment is only effective for that year, the assessment may be continued each year without another ballot proceeding with approval of the RD 2059 Board of Trustees. On-going annual assessments cannot be increased without property owner approval, except for an annual escalation as described below.

Escalation of the Assessments

In order to ensure that RD 2059 can provide the needed services over time, it is important to increase the assessment overtime subject to the rising costs of labor over time. The engineer has determined that an appropriate escalation factor is a factor that is reflective of labor (not consumption) in the locale the services are provided. Therefore, beginning in FY 2016/17, the maximum authorized assessment will be subject to an annual inflationary escalator pursuant to Government Code §53739 (b) based on the annual change in the Consumer Price Index June to June CPI-W¹ for San Francisco-Oakland-San Jose, All Items with Base Year 1982–84 = 100, published by the U.S. Department of Labor, Bureau of Labor Statistics, subject to a minimum of 0 percent and a maximum of 3 percent in any given year. The adjustment to the maximum authorized assessment will be made irrespective of the annual assessment approved by the RD 2059 Board of Trustees for any given year.

¹ CPI-W is reflective of the rising cost of labor by urban wage earners versus CPI-U which is reflective of the rising costs of a standardized basket of goods purchased by urban consumers.



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6. Conclusions

It is concluded that the proposed assessments do not exceed the reasonable cost of the proportional special benefit conferred on each property assessed.

Scott L. Brown, P.E.





Appendix A Annual Budget



Appendix A - FY 2015/16 Annual Budget Details

RD 2059 Bradford Island FY 2015/16 Annual Budget

Fiscal Year	FY 2015-2016	FY 2016-2017
Expenditures		
Subventions Categories		
650.00 · Administrative for Subventions	4,000	4,000
650.10 · Rodent Control	5,000	5,000
650.11 · Seepage Control & Boils	2,000	2,000
650.12 · Shaping of Levee Crown	4,000	4,000
650.13 · Traffic Control	0	0
650.14 · Underwater Surveys	0	0
650.15 · Vegetation Control	14,000	14,000
650.16 · Waterside Slope Repairs	0	0
651.00 · Ditch & Drains Adjacent to Land	0	0
652.00 · Encroachments - Remove or Restore	2,000	2,000
653.00 · Engineering - Subventions	20,000	20,600
654.00 · Erosion & Slipouts Repair	12,000	12,000
655.00 · Flood Emergency Planning	4,000	4,000
656.00 · Levee Patrols	9,000	9,000
657.00 · Levee Profiles & Cross Sections	0	0
658.00 · Levee Rehabilitation	0	0
659.00 · Repair & Shaping of Roads	2,000	2,000
Subtotal Subventions Categories	78,000	78,600
General District Expenses		
501.00 · Levee Maintenance	15,000	15,000
502.00 · Program Manager	6,600	6,800
503.00 · Pump Tender	4,000	4,000
504.00 · Pump Utilities	36,000	36,000
505.00 · District Engineering	15,000	15,000
506.00 · Legal	33,000	37,000
507.00 · Accounting & Auditing-District	3,500	3,500
508.00 · Liability Insurance	7,400	7,400
509.00 · Registered Warrants Paid	0	0
510.00 · Misc. Expenses	600	600



RD 2059 Bradford Island FY 2015/16 Annual Budget

Fiscal Year	FY 2015-2016	FY 2016-2017
511.00 · Automobile Expense	0	0
512.00 · Bank Service Charges	420	420
513.00 · Cash Discount	0	0
515.00 · Contributions	0	0
516.00 · Dues and Subscriptions	700	700
518.00 · Worker's Comp	4,000	4,000
519.00 · Licenses and Permits	0	0
520.05 · Finance Charge	0	0
520.10 · Loan Interest	0	0
520.15 · Interest Expense	0	0
521.00 · Postage and Delivery	300	300
523.00 · Professional Fees	300	300
524.00 · Repairs	0	0
524.05 · Building Repairs	0	0
524.10 · Computer Repairs	500	500
524.15 · Equipment Repairs	0	0
524.16 · Equipment Purchases	0	0
525.00 · Travel & Ent	2,500	2,500
525.05 · Entertainment	0	0
525.10 · Meals	0	0
525.15 · Travel	0	0
526.00 · Payroll Expenses	300	300
550.00 · Administration	60,000	60,000
551.00 · Office Supplies	2,500	2,500
552.00 · Professional Fees-Website Maint	500	500
553.00 · Rent	3,600	3,600
554.00 · Telephone	2,500	2,500
556.00 · Utilities - Office	900	900
556.05 · Gas and Electric	0	0
556.10 · Water	0	0
556.15 · Trash	0	0
556.20 · Equipment Rental	0	0
556.30 · Pump Station - Construction	0	0
Subtotal General District Expenses	200,120	204,320



RD 2059 Bradford Island FY 2015/16 Annual Budget

Fiscal Year F	FY 2015-2016	FY 2016-2017
DWR Expenditures		
605.00 · DWR - Contracts	0	0
610.00 · DWR - Engineering	0	0
615.00 · DWR - Misc. Expenses	0	0
Subtotal DWR Expenditures	0	0
Delta Ferry Authority		
522.00 · Printing and Reproduction	500	500
705.00 · Regular Assessments	118,800	118,800
710.00 · Special Assessments	19,250	19,250
711.00 · Ferry Repair Assessments	15,000	15,000
715.00 · Accounting For Ferry	4,500	4,500
Subtotal Delta Ferry Authority	158,050	158,050
Other Expenses		
Carr & Ferrell Settlement	10,000	10,000
FEMA/OES Debt from '83 Flood	17,800	0
Demand Warrants (Bank of Stockton)	TBD	TBD
Reserve Contingency	0	0
Subtotal Other Expenses	27,800	10,000
Total Expenditures	\$463,970	\$450,970
Revenues		
400.00 · Current O&M Assessment	303,000	158,100
400.05 · Direct Billed Assessments	11,042	0
410.00 · Fees & Permits	0	0
420.00 · Ferry Toll	0	0
430.00 · Misc. Inc Refunds, Int, etc	2,800	2,800
440.00 · Work Agreement DWR Fund	0	0
465.00 · DWR Interest Accrued (Interest Income)	0	0
467.00 · DWR - Added Funding	50,150	50,150
Total Revenues	\$366,992	\$211,050

Source File: RD 2059 - Appendix A & Table 1 20150603.xlsx



Appendix B Cash Flow Analysis



RD 2059 Bradford Island Cash Flow Analysis

Fiscal Year	FY 2015-2016	FY 2016-2017	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025	FY 2025-2026
Expenditures											
Subventions Categories											
650.00 · Administrative for Subventions	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
650.10 · Rodent Control	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
650.11 · Seepage Control & Boils	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
650.12 · Shaping of Levee Crown	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
650.13 · Traffic Control	() () () () (0	0	C) 0	0	0
650.14 · Underwater Surveys	() () () () (0	0	() (0	0
650.15 · Vegetation Control	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000
650.16 · Waterside Slope Repairs	() () () () (0	0	() (0	0
651.00 · Ditch & Drains Adjacent to Land	() () () () (0	0	() (0	0
652.00 · Encroachments - Remove or Rest	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
653.00 · Engineering - Subventions	20,000	20,600	21,200	21,800	22,500	23,200	23,900	24,600	25,300	26,100	26,900
654.00 · Erosion & Slipouts Repair	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
655.00 · Flood Emergency Planning	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
656.00 · Levee Patrols	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000
657.00 · Levee Profiles & Cross Sections	. () () () () (0	0) (0	0
658.00 · Levee Rehabilitation	() () () () (0	0) (0	0
659.00 · Repair & Shaping of Roads	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Subtotal Subventions Categories	78,000	78,600	79,200	79,800	80,500	81,200	81,900	82,600	83,300	84,100	84,900
General District Expenses											
Subtotal General District Expenses	200,120	204,320	208,520	212,720	217,920	218,120	218,320	218,520	218,720	218,920	219,220
DWR Expenditures											
Subtotal DWR Expenditures	C	0	0	0	0	0	0	0	0	0	0
Delta Ferry Authority											
522.00 · Printing and Reproduction	500										
705.00 · Regular Assessments	118,800										
710.00 · Special Assessments	19,250										
711.00 · Ferry Repair Assessments	15,000										
715.00 · Accounting For Ferry	4,500										
716.00 · Expanded Ferry Service Prop 218	(
Subtotal Delta Ferry Authority	158,050	158,100	158,100	158,100	158,100	158,100	158,100	158,100	158,100	158,100	158,100
Other Expenses											_
Carr & Ferrell Settlement	10,000										0
FEMA/OES Debt from '87 Flood	17,800										
Bank of Stockton Warrants	23,000					23,000	23,000	23,000			23,000
Subtotal Other Expenses	50,800	33,000	33,000	33,000	33,000	33,000	29,500	23,000	23,000	23,000	23,000
Total Expenditures	\$486,970	\$474,020	\$478,820	\$483,620	\$489,520	\$490,420	\$487,820	\$482,220	\$483,120	\$484,120	\$485,220
Revenues											
400.00 · Current O&M Assessment	303,000	158,255	158,255	158,255	158,255	158,255	158,255	158,255	158,255	158,255	158,255
400.05 · Direct Billed Assessments	11,042) (0	0
410.00 · Fees & Permits	,-) () (0	0
420.00 · Ferry Toll	() () () () (0	0) (0	0
430.00 · Misc. Inc Refunds, Int, etc	2,800		2,800) () (0	0) (0	0
440.00 · Work Agreement DWR Fund	,) (0	0) (0	0
465.00 · DWR Interest Accrued (Interest Incor) () (0	0	() (0	0
467.00 · DWR - Added Funding	42,600	43,000	43,300	43,700	44,100	44,500	44,900	45,400	45,800	46,300	46,700
Total Revenues	\$359,442	\$204,055	\$204,355	\$201,95	\$202,355	\$202,755	\$203,155	\$203,655	\$204,055	\$204,555	\$204,955
Not Income before Dropped Assessment	6127 520	6260.00	6274.40	\$304 CC	6207.40	\$307.CC	\$304.CC	\$370 FCF	6270.000	\$370 FCF	\$200.205
Net Income before Proposed Assessment	-\$127,528	3 -\$269,965	-\$274,465	-\$281,665	-\$287,165	-\$287,665	-\$284,665	-\$278,565	-\$279,065	-\$279,565	-\$280,265
Income from Proposed O&M Assessment	237,000	244,110	251,433	258,976	266,746	274,748	282,990	291,480	300,225	309,231	318,508
Net Income with Proposed O&M Assessment	\$109,472										
Ending Balance	\$109,472	2 \$83,617	\$60,585	\$37,897	7 \$17,477	\$4,560	\$2,886	\$15,801	L \$36,960	\$66,626	\$104,870
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Source File: RD 2059 - Appendix B 20150617.xlsx

Appendix C FY 2015/16 Proposed Assessment Rates



RD 2059 Bradford Island FY 2015/16 Proposed Maximum Assessment Rates

APN	APN Owner of Record		APN	Owner of Record	FY 2015/16 Maximum Annual Assessment Rate	
026-020-002	RECLAMATION DISTRICT #2059	0.00	026-050-024	KEVIN FINTA	3,102.10	
026-020-003	RICHARD A & ADELEN R CROW	90.00	026-050-031	JAMES & SHARLIE FOLSOM	2,227.90	
026-020-004	RECLAMATION DISTRICT #2059	0.00	026-050-032	SOSNOWSKI & ASSOCIATES INC	2,678.11	
026-020-005	ANTHONY & GEORGANNA ARCHIMEDE	900.00	026-111-001	DONALD M & SUSAN E MCPHERSON	618.30	
026-020-006	SOSNOWSKI & ASSOCIATES INC	17,993.36	026-111-002	DEREK D LUONG	500.40	
026-030-001	JPMORGAN CHASE BANK NA	4,039.60	026-111-003	DEREK D LUONG	333.00	
026-030-002	PHONG L TRAN	14,758.10	026-111-004	ROBERT DANIEL & WILLIAM P HALL	179.10	
026-030-003	STOCKTON PORT DISTRICT	3,830.60	026-111-005	ROBERT DANIEL & WILLIAM P HALL	179.10	
026-030-004	SOSNOWSKI & ASSOCIATES INC	3,830.60	026-111-006	BINH HOA NGUYEN	630.00	
026-030-005	JAMES & SHARLIE FOLSOM	3,981.52	026-111-007	ROBERT MACDONALD	463.50	
026-030-008	JESSICA AUBLE	90.00	026-120-001	SOSNOWSKI & ASSOCIATES INC	871.20	
026-030-009	SOSNOWSKI & ASSOCIATES INC	3,830.60	026-120-002	STEPHANIE A FOSTER	33.30	
026-030-013	JANIS I & ROBERT M SHERMAN	1,353.70	026-120-003	SALVADORE & ALLENE COLA	33.30	
026-030-014	LAWRENCE S TORES	5,366.11	026-120-004	SOSNOWSKI & ASSOCIATES INC	70.20	
026-040-002	STOCKTON PORT DISTRICT	10,266.77	026-120-005	SOSNOWSKI & ASSOCIATES INC	806.40	
026-040-003	REED LEASING GROUP LLC	9,169.04	026-120-006	SMITH & KAREN CUNNINGHAM	450.00	
026-040-004	SMITH & KAREN CUNNINGHAM	8,930.10	026-120-007	SCOTT W & CATE KUHNE	797.40	
026-040-005	RECLAMATION DISTRICT #2059	0.00	026-120-008	RODNEY A MARIANI	830.70	
026-040-007	RECLAMATION DISTRICT #2059	0.00	026-120-009	MATTHEW W & JAN FLEUMER	441.00	
026-040-008	SOSNOWSKI & ASSOCIATES INC	2,365.58	026-120-010	MICHAEL A & SUZANNE H CRAIG	440.10	
026-040-010	VALLEY DUCKS	3,612.05	026-120-011	MICHAEL A CRAIG	90.90	
026-040-011	ROBERT J & JOAN DAVIES	1,886.96	026-120-012	SOSNOWSKI & ASSOCIATES INC	783.00	
026-050-004	JEFFERY & SARA TAMAYO	1,645.10	026-120-013	99 SPORTSMENS CLUB INC	864.00	
026-050-006	EDDIE K ARAKELIAN	24,995.20	026-130-001	EUGENE C & ESTHER H LEWIS	451.71	
026-050-009	JPMORGAN CHASE BANK NA	675.00	026-130-002	SMITH & KAREN CUNNINGHAM	456.21	
026-050-011	SOSNOWSKI & ASSOCIATES INC	1,280.85	026-130-004	EUGENE C & ESTHER H LEWIS	103.50	
026-050-012	SOSNOWSKI & ASSOCIATES INC	1,280.85	026-100-800	California Resource Corp	30,677.55	
026-050-013	DONALD D WRIGHT	1,280.85	026-100-801	California Resource Corp	3,129.10	
026-050-014	CARL BEHNEMAN	675.00	026-100-802	California Resource Corp	3,129.10	
026-050-015	GILBERT & LINDA OROZCO	2,151.77	026-100-803	California Resource Corp	3,129.10	
026-050-016	SOSNOWSKI & ASSOCIATES INC	2,009.35	026-100-804	California Resource Corp	8,758.62	
026-050-017	SOSNOWSKI & ASSOCIATES INC	2,009.35	026-100-805	California Resource Corp	9,784.49	
026-050-018	SOSNOWSKI & ASSOCIATES INC	2,009.35	026-100-806	California Resource Corp	17,995.01	
026-050-019	EUGENE C & ESTHER H LEWIS	1,062.30				

Reference: RD 2059 - Benefit Allocation Model_20150611.xlsx

