



AGENDA
RIO DELL CITY COUNCIL
REGULAR MEETING – 6:30 P.M.
TUESDAY, AUGUST 4, 2015
CITY COUNCIL CHAMBERS
675 WILDWOOD AVENUE, RIO DELL

WELCOME . . . By your presence in the City Council Chambers, you are participating in the process of representative government. Copies of this agenda, staff reports and other material available to the City Council are available at the City Clerk's office in City Hall, 675 Wildwood Avenue. Your City Government welcomes your interest and hopes you will attend and participate in Rio Dell City Council meetings often.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Office of the City Clerk at (707) 764-3532. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to assure accessibility to this meeting.

THE TYPE OF COUNCIL BUSINESS IS IDENTIFIED IMMEDIATELY AFTER EACH TITLE IN BOLD CAPITAL LETTERS

- A. CALL TO ORDER
- B. ROLL CALL
- C. PLEDGE OF ALLEGIANCE
- D. CEREMONIAL MATTERS
- E. PUBLIC PRESENTATIONS

This time is for persons who wish to address the Council on any matter not on this agenda and over which the Council has jurisdiction. As such, a dialogue with the Council or staff is not intended. Items requiring Council action not listed on this agenda may be placed on the next regular agenda for consideration if the Council directs, unless a finding is made by at least 2/3rds of the Councilmembers present that the item came up after the agenda was posted and is of an urgency nature requiring immediate action. Please limit comments to a maximum of 3 minutes.

- F. CONSENT CALENDAR

The Consent Calendar adopting the printed recommended Council action will be enacted with one vote. The Mayor will first ask the staff, the public, and the Council members if there is anyone who wishes to address any matter on the Consent Calendar. The matters removed from the Consent Calendar will be considered individually in the next section, "SPECIAL CALL ITEMS".

- 1) 2015/0804.01 - Approve Minutes of the July 21, 2015 Regular Meeting (**ACTION**) 1
 - 2) 2015/0804.02 - Approve Resolution No. 1270-2015 Confirmation of the FY 2015-2016 Tax Assessment of the 1978 Sewer Assessment Bonds (**ACTION**) 12
- L. ITEMS REMOVED FROM THE CONSENT CALENDAR
- G. SPECIAL PRESENTATIONS/STUDY SESSIONS
- 1) 2015/0804.03 - Presentation from the City Engineer, GHD, Inc. on the Water System Asset Management Plan and Preliminary Capital Improvement Plan (**RECEIVE & FILE**) 25
 - 2) 2015/0804.04 - Presentation on a Water Rate Study for FY 2015-2016 Recommending Adjustments to Water Rates (**DISCUSSION/POSSIBLE ACTION**) 50
- H. SPECIAL CALL ITEMS/COMMUNITY AFFAIRS
- I. ORDINANCES/SPECIAL RESOLUTIONS/PUBLIC HEARINGS
- 1) 2015/0804.05 - Introduction and First Reading (by title only) of Ordinance No. 337-2015 Establishing Chapter 15.20 of the Rio Dell Municipal Code Relating to Expedited Permitting Procedures for Small Residential Rooftop Solar Systems Pursuant to AB 2188 (**ACTION**) 74
- J. REPORTS/STAFF COMMUNICATIONS
- 1. City Manager
 - 2. Chief of Police
 - 3. Finance Director
 - 4. Community Development Director
- K. COUNCIL REPORTS/COMMUNICATIONS
- L. ADJOURNMENT

*The next regular meeting will be on August 18 , 2015
at 6:30 p.m. in City Hall Council Chambers*

**RIO DELL CITY COUNCIL
REGULAR MEETING
JULY 21, 2015
MINUTES**

The closed session/regular meeting of the Rio Dell City Council was called to order at 6:00 p.m. by Mayor Wilson

ROLL CALL: Present: (Closed Session): Mayor Wilson, Councilmembers Johnson, Marks and Thompson

Absent: Councilmember Garnes (excused)

Others Present: City Manager Knopp, Water/Roadways Superintendent Jensen and City Attorney Gans

(Regular Meeting): City Manager Knopp, Finance Director Woodcox, Water/Roadways Superintendent Jensen, and City Clerk Dunham

Absent: Chief of Police Hill, Community Development Director Caldwell and Wastewater Superintendent Chicora (excused)

CLOSED SESSION

Mayor Wilson announced the Council would be recessing into closed session regarding the following matter:

Conference with Legal Counsel – Existing Litigation. Name of Case: City of Rio Dell v. SHN Consulting Engineers and Geologists, Inc., a California Corp. Case No. DR130745

The Council reconvened into open session at 6:30 p.m.

Mayor Wilson announced there was no reportable action taken in closed session.

PUBLIC PRESENTATIONS

Nick Angeloff provided a brief update on behalf of the committee for the 50th Anniversary Celebration and announced that Harold Nevill, the City's first City Attorney has been selected to be the Grand Marshall in the Wildwood Day's Parade. He noted that all of the members from the City's first City Council have passed away and most of the families have moved away. He said at the Chamber of Commerce meeting they covered the details for cruise night, the rib cook-off, the parade and food sales at the lawn mower races.

Mayor Wilson asked him to comment on the festivities at City Hall on Sunday.

Nick reviewed the schedule and said beginning at 10:00 a.m. there will be an Open House with refreshments and display of historical photos; at 10:30 a.m. a presentation by Jerry Rohde, a local historian on the History of Rio Dell; and at 11:30 the Mayor will give Presentations of Acknowledgement to the descendants of the first City Council and staff.

Tracy O'Connell expressed thanks to the City Clerk for her great support in helping to locate people, providing historical information and taking phone calls from various family members.

CONSENT CALENDAR

Motion was made by Johnson/Marks to approve the Consent Calendar including approval of Minutes of the July 7, 2015 Regular Meeting; and approval of an annual step increase for City Manager, Kyle Knopp pursuant to Section 6.B of the City Manager's Employment Contract. Motion carried 4-0.

SPECIAL PRESENTATIONS/STUDY SESSIONS

Presentation from the Executive Director of the Workforce Investment Board, Jacqueline R. Debets

City Manager Knopp said as the Council is aware; the City has been endeavoring to promote economic development in the City and has been going over various strategies.

He introduced Jacqueline Debets and said she would be giving a presentation on Prosperity 2012 and the economic areas of opportunity primed for private investment in Humboldt County.

Jacqueline proceeded with a power point presentation titled: "*Prosperity 2012: Comprehensive Economic Development Strategy*" beginning with a brief overview of the key topics of discussion.

She reported that the timber and fishing industries are basically dead due to the major downturn in those industries and as a result, there are no jobs, the younger generation is leaving the area and Humboldt County is becoming a retirement community.

She noted that high innovation and entrepreneurship leads to growth in productivity, wages and employment and said between 2002-2010 the entrepreneurship indicators show there has been a boom in Humboldt County with the creation of 2,283 new businesses with no employees.

She went on to report that in 2006 there was a study done to see what industries qualified as "targets of opportunity" and the results showed the top six as:

- Diversified Health Care
- Building & Systems Construction & Maintenance

- Specialty Food, Flowers & Beverages
- Investment Support Services
- Management & Innovation Services
- Niche Manufacturing

She noted that despite the recession, these businesses continued to grow and target industries now contribute to 42% of private sector jobs.

She pointed out that although forest products and tourism don't meet all the criteria of "targets" they are still very important to our economy and contribute to a substantial portion of our exports, are fundamentally tied to our region's natural resources and provide opportunities for our residents. It was reported that in 1990, 10.6% of the regions jobs were related to the timber industry compared to only 4.3% in 2010.

Jacqueline said that tourism is the second largest industry overall with regard to the number of job opportunities and that people come here for our beauty and lifestyle.

Multi-Cluster Needs included:

- Infrastructure of Connectivity
- Plug leaks in capital flow
- Proactively address regulatory complexity without sacrificing environment or quality of life
- Generate and conserve energy and materials
- Ready land for high value uses
- Incubate businesses and entrepreneurs
- Cooperatively and strategically market region
- Increase regional capacity to attract, train and retain quality workforce

Next was review of average wages by industry as compared to wages for those same jobs in this region.

In closing she said that youth wants to be part of a place that is becoming something and suggested investing in something that will attract them to stay.

City Manager Knopp stated that this is an excellent opportunity to ask one of Humboldt County's leading experts in economic development what the City can do to foster economic development.

He noted that she discussed the various ways and strategies to promote economic development but also the City needs to think about branding by building a community through events as well as upgrading community facilities such a community center. He said creating an inventory of

available land and identifying any zoning or environmental issues to use as a roadmap for potential investors is a good idea. Also, the City should focus on code enforcement efforts and clean up properties so people will have a more positive feeling when they come into the City. He commented that thanks to the County and Measure Z those efforts are moving forward.

Jacqueline commented that having an attractive and safe community are good indicators and having a walkable community makes people and entrepreneurs want to walk and spend money. She suggested creating a clear and simple template of all land in the City with corresponding zoning and any land use restrictions for each parcel. She also pointed out that if the City looks at the long term and what is trying to be achieved and basically work backwards, there will be economic growth.

Councilmember Thompson said what he is hearing is that the City is seeing a lot of retirees coming in which can be a challenge and said he realizes Rio Dell is a bedroom community so perhaps the answer is to develop a plan to feel the needs of retirees.

Jacqueline stated that assets, climate and affordable housing are attractive to young families as well as retirees and the better the community looks, the more likely it is of bringing in new businesses. She suggested the City explore long-term grants such as the McLean Foundation or the Humboldt Area Foundation because their interest is regional. She referred to a regional 10-year \$10 million grant opportunity geared toward self-sufficiency of the community with potential investment in poverty and economic development. She added that as part of the overall picture she feels Rio Dell could attract regional grant funding because of the poverty factor as a result of the down turn in the timber industry whereas; the Cities of Eureka and Arcata probably couldn't.

Mayor Wilson called for public comment.

Melissa Marks referred to the \$10 million in grant funding and asked what the funds are earmarked for.

Jacqueline said in Del Norte County the intention is to break the poverty cycle and set them on a better path as they are still suffering from the loss of the timber industry. She noted that a portion of the money will also be going into schools.

Nick Angeloff asked about the road construction on Highway 299 and 101; the radio station (7.90 AM) that tells tourists what to do in Humboldt County and asked if the Headwaters Fund is a potential granting agency for economic development.

Jacqueline explained that Cal-Trans is moving forward on the Highway 101 realignment project at Richardson's Grove as well as the construction on Highway 299 and said that construction is currently creating up to two-hour traffic delays but there were some trucks that couldn't make the turns so this will make it much better. She said the estimated date for completion is 2017 for

both projects. She said the Headwaters Fund has no money to give out right now because the market they invest in only has a 1% return. She indicated there are some infrastructure loans and small business loans but it is a small fund as compared to some of the others.

Nick Angeloff asked for her views on master permitting versus pre-permitting.

Jacqueline said this is where the City can make a significant difference and said the idea is to select a specific area, do the planning and make designs specific to that area and go through the environmental process so a potential investor can walk in and get an over-the-counter permit. She pointed out that time is money and if you tell an investor that although you have no money to help with such things as infrastructure improvements, you promise to get their project approved in much less time. She provided instances where jurisdictions were successful when using this approach.

Nick then asked if she thought an in-kind contribution grant is fundable for the City considering the poverty aspect to do the planning for master planning.

Jacqueline said it is a possibility but she would focus the attention on a CDBG grant although CDBG programs are hard for cities to maintain because the guidelines are continually changing. She added that the CDBG program is the most challenging of all and becomes pretty trying for staff.

Nick then asked her thoughts on agricultural collaborative for warehousing and cold storage, referring to the Eel River Industrial Park.

Jacqueline said in agricultural zones it comes down to the value of farmers because they tend to work on a small margin. She noted that she hears there is a demand for co-cleaning, packaging, shipping and with fuel prices going up it could be a viable option. She said it really depends on who is making money and who is willing to make the investment.

Mayor Wilson expressed the Council's appreciation for her presentation and said the hope is to get something going for the City in the way of economic development.

SPECIAL CALL ITEMS/COMMUNITY AFFAIRS

Update on Metropolitan Well Site Redevelopment Project Authorizing the City Manager to Sign an Agreement for Final Design, Bid Period Services and Construction Management Contract with GHD Engineering, Inc.

City Manager Knopp provided a brief staff report and said in going through the process of redeveloping the Metropolitan Wells, the pre-design work has been completed and said the City is now moving into the final design phase and needs to discuss how to move forward at this point. He said Engineer Willor is present to discuss the next steps and answer any questions the

Council may have.

Engineer Willor provided a brief update on the final design, grant monitoring, and the anticipated project schedule.

He said that he spoke to the County who is the grant administrator, and from their standpoint the grant process is on track. He noted that they received the final executed grant agreement from the Department of Water Resources and the City should receive the grant documents and sub-grantee agreements for signature over the next couple of weeks.

He reviewed the scope of services in the draft *Agreement Between the City of Rio Dell and GHD, Inc. for Final Design, Plans, Specifications, Bid Period Assistance and Optional Construction Phase Services for the Metropolitan Wells Redevelopment Project* as provided in the Council packet and reviewed the steps done to get ready to go out to bid on the project. In reviewing the anticipated project schedule he said the grant funds will be in-hand by the end of July followed by completion of the final design, plans and specifications in August or early September; the bidding process after that; with construction to begin around October 2015 with completion of the project now expected in February or March 2016.

Councilmember Johnson referred to page 4 of the agreement related to the *Materials Testing/Compliance* and said it refers to the contractor being responsible for contracting directly with a local independent firm capable of performing the required tests and asked what tests are going to be done that GHD can't do.

Engineer Willor explained there will be some compaction testing of the subgrade for the pipe trenches and parking area.

Councilmember Johnson commented that he would imagine that most manufacturers provide the necessary specifications.

Councilmember Johnson then referred to page 6 of the agreement related to *Exclusions and Additional Services* and asked Engineer Willor what he perceives the City may need with regard to additional services.

Engineer Willor said they perhaps will need to obtain a Flood Plain Encroachment Permit although there would be no cost to the City.

Councilmember Johnson then referred to the 4th bulleted item regarding the construction phase services based on an 88 day construction schedule with no budget to exceed that number of construction days. He said based on the performance of the past project the contractor was very aggressive and completed the project ahead of time and asked if the contractor should complete this project ahead of schedule if there will be any cost savings.

Engineer Willor explained the project will be billed based on time and materials and that this is only an estimate so in the event the project were completed in less time, the cost would go down.

Mayor Wilson called for public comment. There was no public comment received.

Motion was made by Johnson/Thompson to authorize the City Manager to sign the *Agreement Between the City of Rio Dell and GHD, Inc. for Final Design, Plans, Specifications, Bid Period Assistance and Optional Construction Phase Services for the Metropolitan Wells Redevelopment Project*. Motion carried 4-0.

Update on Acquisition of School Site Property for City Park and Authorization for City Manager to Proceed

City Manager Knopp provided a brief update on the potential acquisition of the school site property at the Davis St. Park and stated the project has been on the City's radar for approximately five years. He said the City is under a long-term Joint-Use Agreement with the Rio Dell School District whereby the City will maintain and improve the facilities as funding allows for community recreational purposes. He said over the past couple of years there have been discussions about transferring ownership of three plus acres of school property to the City with the idea that the City then applies for grant funds to establish recreational opportunities for the community. He said both parties were in agreement of the exchange provided the City agreed to fund the costs for surveying the property; preparing legal documents related to the transfer; and fencing the property. He said other priorities got in the way and the transfer did not take place.

He noted that since that time there have been a lot of changes in administration on both sides so staff is now faced with an unclear direction on how to proceed. He said he met with the school board and school administrators and said the school board members expressed interest in learning more facts before giving up a school asset. As such, there are no short-term plans for the transfer of land but there is potential for transfer over time. He noted that because the City is already under agreement to maintain and improve the facilities as funding allows the City basically would only be taking on the title by name and that all of the additional costs associated with ownership have not been fully researched such as property and liability insurance.

He pointed out that initially the thought was that the City had potential opportunity to acquire grant funds for park development but due to the close proximity to the Fireman's Park did not meet the grant criteria. He commented that those are a couple of the negative points.

He said on the positive side, the land could be a potential home for a community center. Also, there is the potential for the establishment of a recreation district through a tax measure for community recreational purposes. In looking into the next ten years or so, he said there may be opportunities for grant funding to rehabilitate the park facilities however; currently there is not. City Manager Knopp said staff is seeking input from the Council whether the desire is to make acquisition of the school property a priority or to put the idea on hold for the time being and

focus on the downtown parking lot or perhaps building a community center.

Councilmember Johnson stated that it was his understanding that the school's attorney advised the Board that they had to receive full market value for any transfer of property.

City Manager Knopp explained that as long as they retain priority preference for use of the facilities it is potentially viable to transfer the land at little or no cost and noted that the current agreement allows them first priority for use.

Discussion continued regarding maintenance and rehabilitation of the facilities, expenses to date in preparation of the transfer; and the timeframe with regard to the school board's decision for potential transfer of the land to the City.

City Manager Knopp estimated that \$2,000 was spent on the survey work and staff time and said the fencing is estimated to be an additional \$10,000. He said if it is the desire of the City Council, he will send a letter to the school board expressing the City's continued interest in pursuing the property transfer.

Mayor Wilson asked for public comment.

Nick Angeloff commented that there is a major distinction between the Fireman's Park and the Little League Park and said the Fireman's Park was designed for community functions whereas; the Little League Park provides a safe place for kids to play. He said the Little League has received donations for probably all of the fencing, a new roof for the bathrooms and the Little League Board has authorized the expense to replace the siding on the snack shack. He noted that the Board is very easy to work with and recreational facilities are the easiest to garner funding for. He said that DCI Construction, Wendt Construction and Diamond Plumbing has all expressed interest in providing assistance with the repairs.

Melissa Marks commented that this is the best report she has heard and said the first idea was to construct a senior center which doesn't benefit the entire community. She said initially the school agreed to gift the property to the City so if they have changed the parameters they should be given the bill for the survey.

Mayor Wilson stated that he understood that the only thing the City had to do was get the survey done and put up a fence and expressed his frustration with the project going on for so long. He suggested moving forward by sending the letter to the school expressing the City's interest to see how it goes from there.

Councilmember Thompson asked for a copy of the survey map of the property.

City Manager Knopp commented that it is unclear whether changing the name on the title hinders or helps the rehabilitation efforts of the facility and agreed to send the letter of interest to the school.

Report on Historical Information on Building Activities and Projected Outlook

Finance Director Woodcox provided a brief presentation on historical information on building activities and the projected outlook and explained that historically, all revenue and expenditures for the Building Department were included in the General Fund. She said in order to provide a clearer picture of Building activities and determine if those activities were self-supporting, a Building Fund was established and beginning with the 4th quarter of FY 2013/2014, an incremental increase in building permit fees of 33% was established, followed by a 66% increase beginning the first quarter of FY 2014/2015. She noted that overall revenue has always been less than expenditures so staff felt that with the 66% increase, the Building Fund would become self-supporting.

She said in the FY 2014/2015 budget, revenues and staff allocations were increased to reflect actual time to be spent on Building Fund activities, including the anticipated construction of a 26-unit senior housing project. Because the project was not constructed, expenditures exceeded revenues for the year requiring a \$54,821 subsidy from the General Fund. She noted that the projections for the current fiscal year are based on actual historical activity and the budgeted outcome is more realistic with a General Fund subsidy of \$17,256.

Councilmember Johnson asked the reason there was an increase in expenses from 2014 to 2015.

Finance Director Woodcox explained that it had a lot to do with budgeting and the anticipation of the DANCO project occurring which affected both the revenues and expenses.

Councilmember Johnson said during his career he spent a majority of his time filling out time cards allocating his time to various projects and his sense is to not approach that concept here.

Staff responded that the idea of doing a time study was discussed to get a more realistic number for the Building Fund activities and as we get further into the budget process, it could be done.

City Manager Knopp added that another factor is that the City switched from a contract building inspector to a staffed position with a fixed salary and benefits.

Mayor Wilson pointed out that whether the City uses an outside contractor or performs the service in-house the City is still writing a check so he thinks it makes sense to leave it in-house. He commented that he doesn't want to see building permit fees so high that no one will want to build in Rio Dell. He said the solution is not to charge more for permits; but to issue more permits.

Authorize Mayor to sign Agreement with County of Humboldt for Measure Z Funding

City Manager Knopp provided a staff report and said staff submitted a grant application to the Citizen's Advisory Committee on Measure Z Expenditures including a request for \$35,569.00 for the purpose of additional clerical support for law enforcement including enhanced nuisance abatement and code enforcement activities. He said the request was approved and will provide clerical support from the Finance Department to the Police Department 3 days/week; 1 of which will be dedicated to Code Enforcement activities. He said staff's recommendation is to authorize the Mayor to sign the agreement.

Councilmember Johnson commented that it is really important to show that the City is successful with regard to Code Enforcement in order to get future additional funding and suggested taking a lot of pictures to show the progress.

Mayor Wilson commented on a recent letter received from a citizen regarding the abandoned vehicle problem in the City and also pointed out that getting rid of the vehicles on the street helps to promote economic development as Jacqueline Debets reported.

Motion was made by Johnson/Marks to authorize the Mayor to sign the agreement with the County of Humboldt for Measure Z funding. Motion carried 4-0.

REPORTS/STAFF COMMUNICATIONS

City Manager Knopp provided a verbal staff report and said staff is beginning to work on modifications on the downtown parking lot; said the Chamber of Commerce will be using the parking for the rib cook-off at the end of the month; reviewed the schedule related to installation of the EV charging station; said staff began initial discussions with Eel River Disposal regarding renewal of the garbage franchise agreement; thanked Councilmember Johnson for drawing the City's attention to the illegal dumping within the utility easement outside City limits and said it was hauled to HWMA under the 901 subsidy; the Police Department borrowed a radar trailer and placed it in a couple of spots around town as the result of a citizen complaint; over the past two weeks tours occurred at the Metropolitan Well Site; one with Senator McQuire that Councilmember Garnes set up; and another with staff and the State Division of Water Rights; public works staff is working on some drainage issues and also did some smoke testing. He thanked the Public Works Department and said new equipment was used for the smoke testing which will ultimately save money and provide a long-term plan to mitigate most of the City's I & I problems; announced there will be a Car Seat Safety Event at City Hall on July 28th sponsored by the St. Joseph Health Care System and CHP; over the next couple of weeks will be focusing on Code Enforcement efforts, especially on Wildwood Ave. in preparation for Wildwood Days; and that staff will be focusing on gathering data for the first Water Rate presentation scheduled for the August 4th Council meeting.

Finance Director Woodcox reported on recent activities in the finance department and said staff is getting ready for the new sewer billing and trying to anticipate in advance any potential problems.

Councilmember Johnson questioned check number 3815 to Trinity Diesel in the amount of \$3,300 for repairs to a CAT generator.

Water/Roadways Superintendent Jensen said the generator malfunctioned and actually caught on fire and that particular component was not on warranty.

COUNCIL REPORTS/COMMUNICATIONS

Councilmember Thompson reported on the last HWMA meeting and said the final capping of the Cummings Landfill will be completed in September and then they will be moving on to long-term maintenance of the site.

Councilmember Johnson reported on his attendance at the League of California Cities regional meeting held in Trinidad and said there was a lengthy discussion related to the pros and cons of vacation rentals which was a fascinating discussion. He said they generated over \$120,000 in Bed Tax Revenue but the Fire Department can't get volunteers because there are not enough permanent residents. He said should the City want to have an ordinance covering this issue, Trinidad has five years into their ordinance and it works very well.

Councilmember Marks reported he attended the Chamber of Commerce today and Redwood Coast Energy Authority (RCEA) yesterday and said they are in the recruitment process for installation of the EV charging stations.

ADJOURNMENT

Motion was made by Johnson/Marks to adjourn the meeting at 9:07 p.m. to the August 4, 2015 regular meeting. Motion carried 4-0.

Frank Wilson, Mayor

Attest:

Karen Dunham, City Clerk

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Rio Dell, CA 95562
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(707) 764-5480 (fax)
E-mail: cm@riodellcity.com



CITY OF RIO DELL
STAFF REPORT
CITY COUNCIL AGENDA
August 4, 2015

TO: Mayor and Members of the City Council

THROUGH: Kyle Knopp, City Manager *[Signature]*

FROM: Brooke Woodcox, Finance Director *[Signature]*

DATE: August 4, 2015

SUBJECT: Resolution 1270-2015 Confirmation of the FY 2015-2016 Tax Assessment for financing of the 1978 Sewer Assessment Bonds

RECOMMENDATION

Approve Resolution 1270-2015 Confirmation of the FY 2015-2016 Tax Assessment for financing of the 1978 Sewer Assessment Bonds.

BACKGROUND AND DISCUSSION

Each year the City submits the sewer assessment charges by parcel to the County Auditor-Controller's office for inclusion on the current year property tax bill. Prior to submission, a resolution of the governing body is required for authorization for the levying of current year taxes/assessments. The 1978 Sewer Assessment Bonds are scheduled for full repayment in fiscal year 2017-2018.

The City's Fiscal Year 2015-2016 assessment to be levied totals \$28,785.31.

Attachment: Sewer Assessment by Parcel



**RESOLUTION NO. 1270-2015
A RESOLUTION OF THE CITY COUNCIL
OF THE CITY OF RIO DELL
CONFIRMATION OF FISCAL YEAR 2015-2016 TAX ASSESSMENT
1978 SEWER ASSESMENT BONDS**

WHEREAS, the City of Rio Dell City Council levied a 40 year tax assessment to fund the sewer infrastructure improvement project of 1978; and

NOW THEREFORE BE IT RESOLVED, that the City of Rio Dell City Council does hereby authorize the Humboldt County Auditor Controllers Office to place this assessment in the amount of \$28,785.31, on the rolls effective July 1, 2015.

PASSED AND ADOPTED by the City of Rio Dell on this 4th day of August 2015.

Ayes:
Noes:
Abstain:
Absent:

Frank Wilson, Mayor

ATTEST:

Karen Dunham, City Clerk

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August 4, 2015

TO: Rio Dell City Council

FROM: Kyle Knopp, City Manager 

SUBJECT: Receive a Presentation from City Engineer on the Water System Asset Management Plan and Preliminary Capital Improvement Plan.

IT IS RECOMMENDED THAT THE CITY COUNCIL:

Receive the presentation.

BACKGROUND AND DISCUSSION

Work began in 2014 to develop asset plan for the water system of Rio Dell. The attached report helps describe and quantify the City's water system, identifying priority components that need to be replaced or upgraded. The report highlights a number of needs that must be addressed soon, as a significant portion of the City's water distribution system predates the City's incorporation and are undersized and prone to failure.

This presentation serves to help inform the City Council of the overall needs of the system prior to discussing changes in the water rates, scheduled for this Council meeting.

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City of Rio Dell
Water System Asset Management Plan and Preliminary
Capital Improvement Plan

July 2015

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Appendix A – Figures

Appendix B – Asset Management and Capital Improvement Plan Tables

1. Introduction and CIP Overview

This Capital Improvement Plan (CIP) consists of documents that identify current and future needs for the replacement of water system components for the City of Rio Dell. The included Asset Management Plan (AMP) identifies the remaining useful life of the individual system components and the estimated replacement costs at the end of their useful lives. The AMP is the supporting documentation needed for the City to start more accurately budgeting for systematic capital replacements. Together, these documents will assist the City in planning for necessary future component replacements and to determine the amount of revenue needed. Proactive maintenance of a public water system is vital to providing a community with safe and reliable access to drinking water and protecting public health.

This document is comprised of seven main sections:

- **Background:** An overview of the CIP development and purpose
- **Existing Water Facilities:** Presents a background on the City's water system.
- **Need for Improvements:** Presents on-going maintenance issues that need to be addressed to keep the system in good working order.
- **AMP:** Presents a summary of the AMP developed for the City's water treatment plant, distribution system, and storage assets with estimated replacement schedules and costs.
- **Preliminary Capital Improvement Plan:** Presents the analysis of the AMP, which indicates the amount of funds the City should be setting aside for Capital Replacement and presents recommendations by City staff for high priority components to be replaced.
- **Funding Options:** Discussion of possible funding scenarios with information on necessary water rate increases to fund improvements and impacts to rate payers.
- **Summary:** Presents the final budget information.

2. Background

In an effort to continue documenting the value of the City of Rio Dell's existing infrastructure and begin planning for future replacements, the City has requested that GHD develop an updated CIP and AMP for the City's water system, similar to the CIP completed by the City and GHD in 2010. In recent years, the City has invested considerably in its water system, most recently completing a Water Infrastructure Improvement Project in 2006. Following the format laid out by the EPA, an AMP was completed to document existing water system infrastructure and includes recent upgrades. The AMP and CIP cover an inventory of the water system components including treatment, storage, and distribution system assets. GHD worked closely with City staff to identify date of installation, condition, service history, useful life, remaining useful life, importance, redundancy, priority, and estimated replacement costs (in 2014 dollars) for all water system assets.

3. Existing Water Facilities

The City of Rio Dell's water system infrastructure including valves, fire hydrants, storage tanks, water treatment plant, distribution system piping, and water service area boundary is shown in Figure 1, in Appendix A. Figure 2 in Appendix A shows the 2006 water pipeline project in more detail.

The City's water supply needs were originally met by individual wells and springs serving clusters of homes and a private water company that served the broader area. Much of the current water system was developed around World War II and later. Eventually, the City developed a well system which was supplied from three wells located north of the City across the Eel River. The production from the City's well system began declining significantly in the fall of 2000, and no increase in water level in the wells was observed even after winter rains came. Attempts to rehabilitate one of the three wells resulted in its complete collapse and failure. An additional well was drilled, and it produced only a minimal amount of water.

It appeared that a water shortage emergency was at hand, and the City of Rio Dell declared a local disaster that was followed by a disaster declaration by the Governor. The Office of Emergency Services, the Department of Health Services and the City of Rio Dell then undertook the funding of the Rio Dell Emergency Interim Water Supply System that was constructed over the summer of 2001. The Emergency Interim Water Supply System provided a capacity of 500,000 gallons per day which was enough to meet then current needs based on implementing moderate conservation measures.

In 2006, the City completed an upgrade to the interim water system which included a permanent water intake on the Eel River consisting of an infiltration gallery; wet well; intake pump; force main; improvements to the chlorination system; additional filtration units; miscellaneous pipes, valves and appurtenances; and site paving. The current system with improvements has a filtration capacity of 1,000,000 gallons per day.

Much of the early water distribution system was constructed out of available pipe and was installed without regard to an appropriate long-term design standard. Approximately 28,000 feet of new 6", 8" and 10" water mains were installed in 2006, funded through a grant from the California Department of Water Resources (DWR). There have been several other minor projects in recent years to continue the process of replacing sections of the distribution system. There are still small pipes, 2" to 6", that are 50 years or older and should be replaced.

The City of Rio Dell maintains four water storage tanks. The Painter Street Tank is a 250,000-gallon welded steel water tank that supplies the main pressure zone. The Douglas Tank site has a new 500,000 gallon bolted steel tank and an existing 250,000 gallon redwood tank also supplying the main pressure zone. The Dinsmore Tank, a 100,000-gallon bolted steel water tank installed in 2007, supplies a smaller pressure zone and is filled from the Douglas Tank.

4. Need for Improvements

Proposed improvement projects are presented and described in this section under the heading that best describes the need for the project element including health and safety, system operation and maintenance, and capacity for growth. The project elements discussed under each heading are presented in their preliminary priority order.

The water treatment plant improvements are generally intended to enhance the reliability of the water treatment plant or meet upcoming regulations and are not intended to increase plant capacity. The City currently produces approximately 90 million gallons of drinking water per year. Average daily use is estimated at 0.267 million gallons per day (MGD), while peak daily use is estimated at approximately 0.474 MGD.

4.1 Replacement of Transmission and Distribution Pipelines and Appurtenances

The City of Rio Dell's water transmission and distribution system originated from the consolidation of private systems and construction of new sections over time. The resulting system serves incremental new developments rather than serving the City as a whole. There remains considerable steel piping in deteriorating condition within the system that is smaller than 4" in diameter and is inadequate to provide fire protection if needed. The distribution system in Dinsmore on Monument Road and Old Ranch Road is in particularly poor condition and needs replacement. All old steel pipe smaller than 4" in diameter should be replaced to comply with current California Waterworks Standards. Additionally, cleanout and blow off assemblies need to be added to keep the piping network clean. Valves and hydrants that do not operate properly need to be replaced. Older pipes also tend to have higher water leak rates; therefore, replacing these pipes would provide the benefit of improving water conservation.

4.2 Booster Pump Station to Dinsmore

The City of Rio Dell operates a booster pump station at the Douglas Tank site which boosts pressure from the City's primary pressure zone to a second pressure zone on the Dinsmore Plateau. The booster pump station plumbing is in need of replacement. The suction piping necks down from 8" to 2", while the discharge piping is also 2". The piping was done by a previous developer and needs to be modified to provide adequate flows. Moreover, the pumps appear to have diminished in capacity and are in need of replacement. This booster pump station will be replaced when the Dinsmore Plateau is developed and paid for by the development. Until development occurs and the pump station is replaced, the City will maintain the existing station.

4.3 Dinsmore Tank Solar Powered Telemetry System

The existing wiring for the Dinsmore Tank is buried directly in ground and is corroded, causing malfunction. The City needs to replace the system with a solar powered telemetry system to maintain continuous operation of the Dinsmore Tank.

4.4 Painter Street Tank Rehabilitation

The City of Rio Dell's existing Painter Street Tank is in need of repair or replacement. The existing paint job on the tank has deteriorated, and both the interior and exterior of the tank need to be repainted. There are also rusty areas that need spot repair. The top of the tank has several holes remaining from previous plumbing that need to be patched. It appears that replacement of the tank may be more economical and provide the City with a better long-term solution than rehabilitating the existing Painter Street Tank. Valving at the tank also needs to be replaced.

4.5 Douglas Tank Replacement

The City's Douglas Tank #1, a 250,000 gallon redwood tank, has several leaks that are getting worse with time. The cost of lining the tank to provide additional useful life is an option; however, the expense would be high, and replacement would be a better long term solution.

4.6 Additional Plant Operations Building

There are currently only two enclosed buildings serving the City of Rio Dell's water treatment plant, which are used to capacity. The City needs a new building to serve as an administrative work space and equipment storage area. The building would provide staff with a functional office space to prepare and store plant documents, while remaining on the treatment plant site to perform any necessary operations activities. The storage area would be a separate section of the building and would free up space in the laboratory to be able to more safely use the laboratory for its intended purpose. Equipment and file storage is especially important on the North Coast where prolonged rainfall can damage equipment and ruin treatment plant records.

4.7 Re-Coating of Existing Water Treatment Filters

The existing water treatment plant has many pieces of process equipment that are corroding due to exposure to the environment and routine operation. If left unchecked, the rust and corrosion could lead to decay of the underlying steel and eventual need for extensive repairs or replacement.

4.8 Water Meters

The City is having issues with unaccounted water losses in the distribution system. It is believed that existing water meters throughout the City are not functioning properly, and need to be replaced to ensure accurate measurement of customer usage.

5. Asset Management Plan

A separate Asset Management Plan was developed for each of the three main areas of the City's water system; water treatment, water storage and distribution system. The AMP includes a description of each asset, the year it was installed, expected useful life and remaining useful life, condition, service history, importance to the treatment system, redundancy, priority for addressing, and total cost for replacement in 2014 dollars. This information is useful to the City in understanding the value of the infrastructure the City has invested in and puts in perspective the importance of regular maintenance to protect the City's assets. The remaining useful life of the water system components ranges from 1 to 97 years with an average remaining useful life of 24 years. A summary of each system and the value of investment is discussed below.

5.1 Water Treatment

The Rio Dell Water Treatment AMP is included as Table B.1 in Appendix B. The water treatment plant includes the raw water intake, coagulation/flocculation system, filtration, backwash system, SCADA system, and miscellaneous site improvements. The total replacement capital cost for the water treatment system in 2014 dollars is \$2,627,958 excluding any permitting, environmental, design, or outside labor costs.

5.2 Water Storage

The Rio Dell Water Storage Tank AMP is included as Table B.2 in Appendix B. The Water Storage AMP covers the four City storage tanks, the Booster pump station serving the Dinsmore Tank, flow meters, and miscellaneous site improvements. The total replacement capital cost for the City's water storage system is \$1,369,314, excluding any permitting, environmental, design, or outside labor costs.

5.3 Distribution System

The Rio Dell Water Distribution System AMP is included as Table B.3 in Appendix B. The distribution system includes almost 20 miles of pipes running beneath the City streets, in addition to valves, fire hydrants and water meters. The total replacement capital cost for the City's water distribution system is \$9,388,610, excluding any permitting, environmental, design, or outside labor costs.

Table 1 – Summary of Water System Replacement Value

Summary of Water System Replacement Value	
Water Treatment	\$2,627,958
Water Storage	\$1,369,314
Distribution System	\$9,388,610
TOTAL	\$13,065,882

6. Capital Improvement Plan

Several of the system components have exceeded their expected service lives, and planning for the replacement of these components should have already started. It is also clear that the cost of replacing or saving for the replacement of everything that currently should be addressed would be a severe hardship on the City's water customers if borne all at once. Proactive asset management practice suggests implementing a comprehensive, multi-year capital improvement plan as part of the City's annual water budget process.

A preliminary Capital Improvement Plan was developed from each of the AMPs. The CIP was developed assuming that the useful life of components could be extended with good maintenance, and the collection of funds for assets with remaining useful lives greater than 30 years was delayed by 10 years to better disburse the bulk of the repayment costs. Table B.4 in Appendix B shows the CIP with the useful life of system components and the delay in collection of funds for items that have long remaining useful life. This table assumes the City completes the projects in Table 2 below in the next five years and begins addressing other components after two years.

The analysis assumes an interest rate of 2.12% (an average over the past 10 years) in the City's LAIF account and an inflation rate on capital goods of 1.51% (May 2014 Rate).

City staff worked closely with GHD to identify the City's top priority projects. The components that are agreed to be most urgently in need of repair or replacement at the present time (July 2015) are listed in Table 2.

Table 2 – Summary of Priority Water System Projects

Priority Project	Capital Replacement Cost (2014 dollars)
Infiltration Gallery Extension	\$1,000,000
Replacement of Distribution Piping (2" or smaller)	\$500,000
Painter Street Tank Replacement	\$300,000
Water Meters	\$320,000
Miscellaneous Equipment	\$210,000
TOTAL	\$2,330,000

The above costs represent our opinion of **probable construction costs** in 2014 dollars. The miscellaneous equipment section above **includes the Dinsmore tank telemetry system, a SCADA system, new utility vehicle, replacement filter media, asphalt patching, and a vector truck.**

7. Funding Options

The City needs to consider how it will pay to replace its aging water infrastructure and save for future replacement of newly installed **components** before increased wear and tear and deferred maintenance create a situation where **the City is unable to satisfactorily fulfill its dedication to providing clean, safe, and reliable drinking water supply to its citizenry.** The recommended approach is to create a plan for **systematic component** replacement based on the needs outlined in the three AMPs, working closely with **City staff and City Engineer** recommendations.

The City has investigated a plan for **capital improvements** based on a combination of funding methods, including both **customer water revenues and grant funding.** Assuming that grant funds could be secured for the **Infiltration Gallery Extension and the Painter Street Tank Replacement** project, the City and GHD worked together to create a simple 5-year Capital Plan to implement the City's priority projects.

Table 3 – Five Year Capital Plan to Address Priority Projects.

Priority Project	2014 Capital Cost	Year 1	Year 2	Year 3	Year 4	Year 5
Infiltration Gallery Extension	\$125,000 ¹	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Replacement of Distribution Piping (2" or smaller)	\$500,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Painter Street Tank Replacement	\$90,000 ²	\$18,000	\$18,000	\$18,000	\$18,000	\$18,000
Water Meters	\$75,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
Miscellaneous Equipment	\$210,000	\$42,000	\$42,000	\$42,000	\$42,000	\$42,000
Total	\$1,000,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
Average Monthly Cost per Water Connection (1,210 active connections)		\$13.77	\$13.77	\$13.77	\$13.77	\$13.77

¹Assumes a 10% grant match on the total project cost.

²Assumes a 20% grant match on the total project cost.

The cost to have a consultant provide project scoping and prepare a grant application is reflected in the estimates above for the Infiltration Gallery and Painter Street Tank project, at a total cost of \$25,000 and \$30,000, respectively. As shown in Table 2, the total cost to replace the system's water meters is \$320,000. The five year savings target of \$75,000 for the water meters is intended to act as a fund to either replace a portion of the existing meters, or to be used to leverage grant funding to replace every meter in the system. It should be noted that grant funding is not certain, and should funds not be available at the end of the five year savings period the City could find themselves without the sufficient capital to complete the necessary system improvements.

8. Summary

The City of Rio Dell has invested over \$12 million in the water intake, treatment, storage, and distribution systems serving the City. The Asset Management Plan and Preliminary Capital Improvement Plan provide the City a framework for planning for the eventual replacement of water system infrastructure. The City should be collecting between \$400,000 and \$1,400,000 a year for replacement of water system components at the end of their useful life. The variation in amount reflects the potential to extend the useful life of some components and the potential for obtaining grants to leverage City funds.



Appendices

Appendix A – Figures

Appendix B – Asset Management and Capital Improvement Plan Tables

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Document Status

Rev No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date

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August 4, 2015

TO: Rio Dell City Council

FROM: Kyle Knopp, City Manager *zk*

SUBJECT: Discussion and Possible Action on a Water Rate Study for Fiscal Year 2015-2016
Recommending Adjustments in the Water Rates

IT IS RECOMMENDED THAT THE CITY COUNCIL:

Receive the presentation and provide the City Manager with direction on establishing the funding goals for Water Rates.

BACKGROUND AND DISCUSSION

The City Council last adjusted the water rates formula in February of 2005. Base rates were set at \$22.00 per month with a volume based fee starting at \$2.00 for the first 2-10 units of water consumed. The 2005 rate adjustment called for an annual 3% Consumer Price Index / Inflation adjustment, and every year the rate has increased by 3% to the rate charged today: \$27.84 per month base rate and \$2.51 volumetric rate starting at 2-10 units.

By the end of Fiscal Year 2015-2016, the Water Fund is projected to draw down the overall fund balance to zero (\$0.00). This includes all operations funds and capital funds. If no changes are made immediately, the water fund will go negative by next year's budget, jeopardizing the solvency of not just the water fund but also the City.

Analysis from the Rural Communities Assistance Corporation (RCAC), the City's Engineer GHD and staff has costed out the various goals and priorities for the water system. The objective is to present these options and scenarios to the City Council and receive a revenue goal that the City Council finds acceptable.

Staff will then return to the Council to propose a rate structure for selection, based upon input from this meeting. This proposed rate structure and funding goal will then need to follow a transparent noticing process including a 45 day noticing period and communication to impacted property owners that includes the option for affected property owners to submit a protest, among other steps. Should 50% of the affected property owners protest the proposed fees, there can be no adjustment to the water rates.

Staff seeks direction from the Council regarding goals for the water fund. Options range from maintaining the current rate structure, to funding the capital needs of the system at 100%. Since neither of these options is desirable, the City Council will need to find a goal between the two extremes.

The City's consultant with RCAC has developed the attached spreadsheet entitled "City of Rio Dell Water Rate Analysis: Setting the Revenue Goal, August 4, 2015" with the help of staff. The spreadsheet lists priorities and system goals on the left, while proposing funding scenarios across the spreadsheet to the right. The bottom of the spreadsheet includes information that further breaks down the hypothetical rate scenarios.

Using this sheet, Councilmembers can prioritize system elements and see how they potentially impact an amended rate structure.

Also attached is the powerpoint presentation staff will use to begin the discussion of setting the revenue goal.

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City of Rio Dell Water Rate Analysis: Setting the Revenue Goal, August 4, 2015.

Revenue Goals	Expenses	Total Annual Required	Reduced Funding Goal 1	Reduced Funding Goal 2	Reduced Funding Goal 3	Reduced Funding Goal 4	Reduced Funding Goal 5	Reduced Funding Goal 6
Mandatory Debt Service	Water Debt Service	\$136,000	\$136,000	\$136,000	\$136,000	\$136,000	\$136,000	\$136,000
	Water Debt Service Reserve	\$27,200	\$27,200	\$27,200	\$27,200	\$27,200	\$27,200	\$27,200
2015-2016 Water Budget	City Manager	\$128,067	\$128,067	\$128,067	\$128,067	\$128,067	\$128,067	\$128,067
	City Council	\$2,836	\$2,836	\$2,836	\$2,836	\$2,836	\$2,836	\$2,836
	Finance Department	\$138,213	\$138,213	\$138,213	\$138,213	\$138,213	\$138,213	\$138,213
	City Bldgs and Grounds Dept.	\$8,767	\$8,767	\$8,767	\$8,767	\$8,767	\$8,767	\$8,767
	Water Operations	\$366,581	\$366,581	\$366,581	\$366,581	\$366,581	\$366,581	\$366,581
	Contingencies (\$34,181 budgeted but not an anticipated expense)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Capital Projects	\$64,000	\$64,000	\$64,000	\$64,000	\$64,000	\$0	\$0
	3% Annual Cost of Operations & Personnel	\$21,254	\$21,254	\$21,254	\$21,254	\$0	\$0	\$0
	Operational Reserve Rebuilding	\$21,000	\$21,000	\$21,000	\$21,000	\$0	\$0	\$0
	Metropolitan Wells Fund Expenses							
Electricity	\$4,050	\$4,050	\$4,050	\$4,050	\$0	\$0	\$0	
Property Maintenance	\$2,500	\$2,500	\$2,500	\$2,500	\$0	\$0	\$0	
Filter Media	\$1,000	\$1,000	\$1,000	\$1,000	\$0	\$0	\$0	
Water Quality Testing	\$5,000	\$5,000	\$5,000	\$5,000	\$0	\$0	\$0	
Maintenance	\$1,000	\$1,000	\$1,000	\$1,000	\$0	\$0	\$0	
3% Annual Cost of Operations & Personnel (Well Fund)	\$407	\$407	\$407	\$407	\$0	\$0	\$0	
Priority CIP Project 5 Yr Reserve Build -- 20% over 5-yr Grant Match Only								
Infiltration Gallery Extension**	\$25,000	\$25,000	\$25,000	\$0	\$0	\$0	\$0	
Replacement of Distribution (Pre-1950 4" or smaller) **	\$97,842	\$97,842	\$97,842	\$0	\$0	\$0	\$0	
Painter Street Tank Replacement**	\$13,200	\$13,200	\$13,200	\$0	\$0	\$0	\$0	
Water Meters**	\$15,000	\$15,000	\$15,000	\$0	\$0	\$0	\$0	
Miscellaneous Equipment	\$42,000	\$42,000	\$42,000	\$0	\$0	\$0	\$0	
CIP Reserve Building per GHD CIP 2015								
Minimum Annual CIP Reserves	\$184,265	\$184,265	\$0	\$0	\$0	\$0	\$0	
Additional Required for Full Annual CIP Reserve Funding	\$1,600,000	\$0	\$0	\$0	\$0	\$0	\$0	
Subtotal Annual Expenses (All Zones)		\$1,305,183	\$1,110,918	\$927,876	\$871,665	\$807,665	\$629,921	
DINSMORE ZONE FUND								
Annual Booster Electricity	\$1,700	\$1,700	\$1,700	\$1,700	\$0	\$0	\$0	
Water Main and Service Replacement Project: Monument Hydrant to Old Ranch Road**	\$10,177	\$10,177	\$10,177	\$10,177	\$0	\$0	\$0	
Capital Improvement Reserve**	\$10,816	\$10,816	\$10,816	\$0	\$0	\$0	\$0	
Total Dinsmore CIP	\$22,693	\$22,693	\$22,693	\$11,877	\$0	\$0	\$0	
Grand Total Annual Expenses		\$1,327,876	\$1,133,611	\$939,753	\$871,665	\$807,665	\$629,921	

Current Rate Revenue	\$629,972	\$629,972	\$629,972	\$629,972	\$629,972	\$629,972	\$629,972
Net Revenue/(shortfall)	(\$1,697,904)	(\$697,904)	(\$503,639)	(\$309,781)	(\$241,693)	(\$177,693)	\$50
% Increase in Revenue Required	269.5%	110.8%	79.9%	49.2%	38.4%	28.2%	0.0%

Monthly cost per customer if using a fixed rate per connection for all revenue

1213 Total Customers (cost/month)	\$158.37	\$89.67	\$76.32	\$63.75	\$59.88	\$55.49	\$43.28
30 Dinsmore Customers Surcharge/month	\$63.04	\$63.04	\$63.04	\$32.99	\$0.00	\$0.00	\$0.00
Total Dinsmore Cost/per customer/month	\$221.40	\$152.70	\$139.36	\$96.74	\$59.88	\$55.49	\$43.28

Annual Cost per customer	\$1,900	\$1,076	\$916	\$765	\$719	\$666	\$519
Annual Cost Dinsmore Customers	\$2,657	\$1,832	\$1,672	\$1,161	\$719	\$666	\$519
% MHI (\$42,829) All customers	4.4%	2.5%	2.1%	1.8%	1.7%	1.6%	1.2%
% MHI Dinsmore customers	6.2%	4.3%	3.9%	2.7%	1.7%	1.6%	1.2%

Revenue estimates using customer meter records from 2014 and existing rate structure with % adjustments applied equally to all three tier rates (City and Out City):

Rate Increase Required	270%	111%	81%	50%	39%	29%	0%
Total Revenue Produced	\$2,330,895	\$1,329,240	\$1,140,249	\$944,957	\$875,661	\$812,663	\$629,972
City Tier 1 1 Unit (100 CF)	\$100.01	\$57.03	\$48.92	\$40.65	\$37.57	\$34.87	\$27.03
City Tier 2 2-10 Units (101-1000 CF)	\$8.77	\$5.00	\$4.29	\$3.58	\$3.29	\$3.06	\$2.37
City Tier 3 > 10 Units (>1000 CF)	\$13.17	\$7.51	\$6.44	\$5.34	\$4.95	\$4.59	\$3.56
Out City Tier 1 1 Unit (100 CF)	\$150.11	\$85.60	\$73.43	\$60.86	\$56.39	\$52.34	\$40.57
Out City Tier 2 2-10 Units (101-1000 CF)	\$13.58	\$7.74	\$6.64	\$5.51	\$5.10	\$4.73	\$3.67
Out City Tier 3 > 10 Units (>1000 CF)	\$21.83	\$12.45	\$10.68	\$8.85	\$8.20	\$7.81	\$5.90
Avg Cost/City Customer/Month	\$150	\$86	\$73	\$61	\$56	\$52	\$41
Avg Cost Out of City Customer/Month	\$204	\$116	\$100	\$83	\$77	\$71	\$55
City Annual Water Bill	\$131,712	\$75,111	\$64,432	\$53,387	\$49,481	\$45,921	\$35,598

- Notes:
- 1 Out of City Rates (40.57, 3.67, 5.90) used for current rate revenue for out of City customers
 - 2 Customer water meter data for 2014 used for estimate with 16% reduction in flow to reflect 2015 total usage reduction

WATER FUNDS

FINDING A BALANCED FUNDING LEVEL



Today's Goal

- Set a Revenue Goal



Next Goal

- Determine a Rate Structure
- Begin Formal Rate Adjustment Process

How to Read the Revenue Goal Worksheet

- Total Annual Required (Money is no Object)
- Revenue Goal not Funded Under Scenario
- Scenario Requires Expenditure Reductions

Water System Goals

Revenue Scenarios

City of Rio Dell Water Rate Analysis: Setting the Revenue Goal August 4, 2015

Revenue Category	Expense	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7
Mandatory Debt Service	Water 1st 30 Years	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000
	Water 2nd 30 Years	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000
	Water 3rd 30 Years	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000
	Water 4th 30 Years	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000
	Water 5th 30 Years	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000
	Water 6th 30 Years	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000
	Water 7th 30 Years	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000
	Water 8th 30 Years	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000
	Water 9th 30 Years	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000
	Water 10th 30 Years	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000
Metropolitan Water Plant Expenses	Metropolitan Water Plant Expenses	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	Metropolitan Water Plant Expenses	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	Metropolitan Water Plant Expenses	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	Metropolitan Water Plant Expenses	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	Metropolitan Water Plant Expenses	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	Metropolitan Water Plant Expenses	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	Metropolitan Water Plant Expenses	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	Metropolitan Water Plant Expenses	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	Metropolitan Water Plant Expenses	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	Metropolitan Water Plant Expenses	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
2015-2016 Water Budget	2015-2016 Water Budget	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
	2015-2016 Water Budget	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
	2015-2016 Water Budget	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
	2015-2016 Water Budget	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
	2015-2016 Water Budget	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
	2015-2016 Water Budget	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
	2015-2016 Water Budget	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
	2015-2016 Water Budget	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
	2015-2016 Water Budget	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
	2015-2016 Water Budget	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
City of Rio Dell	City of Rio Dell	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	City of Rio Dell	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	City of Rio Dell	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	City of Rio Dell	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	City of Rio Dell	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	City of Rio Dell	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	City of Rio Dell	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	City of Rio Dell	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	City of Rio Dell	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	City of Rio Dell	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000

Summary:

- Total Annual Required: \$1,000,000
- Revenue Goal not Funded Under Scenario: \$1,000,000
- Scenario Requires Expenditure Reductions: \$1,000,000

Possible Rate Breakouts

GOAL

Meet all pre-existing mandatory debt payments.

- **MANDATORY DEBT SERVICE**
 - **FINANCING AGREEMENT – STATE OF CALIFORNIA WATER DEPARTMENT OF WATER RESOURCES**
 - JANUARY 2010 THRU JANUARY 2029
 - \$136,000 ANNUALLY
 - **FINANCING AGREEMENT – SCWDWR REQUIRED RESERVE**
 - BY JANUARY 2020 SET UP \$136,000 RESERVE FOR FINAL PAYMENT
 - \$27,200 FIVE-YEAR BUILD

GOAL

Fund Current Water Department Costs into the Future

- PERSONNEL, OPERATING, REPAIRS AND MAINTENANCE, AND ANNUAL RESERVE BUILD
— \$729,464

- WATER OPERATIONS 366,581
- CITY MANAGER DEPT 128,067
- CITY COUNCIL 2,836
- FINANCE DEPARTMENT 138,213
- BUILDINGS AND GROUNDS 8,767
- 3% ANNUAL INCREASE 21,254
- CIP FOR BASIC REPAIRS AND MAINT. 64,000
- OPERATIONAL RESERVE BUILD 21,000



GOAL

Fund new infrastructure (Metropolitan Well Site)

- METROPOLITAN WELL PROJECT MAINTENANCE

\$13,957

- ELECTRICITY 4,050
- PROPERTY MAINTENANCE 2,500
- FILTER MEDIA 1,000
- WATER QUALITY TESTING 5,000
- MAINTENANCE 1,000
- 3% ANNUAL INCREASE 407



GOAL

Get ahead of the curve, proactively replace infrastructure leveraging State and Federal resources

- **PRIORITY CIP PROJECT 5 YEAR RESERVE BUILD**
 - \$183,042 ANNUALLY

- INFILTRATION GALLERY EXTENSION 25,000
- REPLACEMENT PRE 1950 4" OR SMALLER 87,842
- PAINTER STREET TANK REPLACEMENT 13,200
- WATER METER REPLACEMENT 15,000
- MISCELLANEOUS EQUIPMENT 42,000

*These amounts would collect approximately 20% of the component's 2014 replacement value over five years to leverage State and Federal Dollars.



GOAL

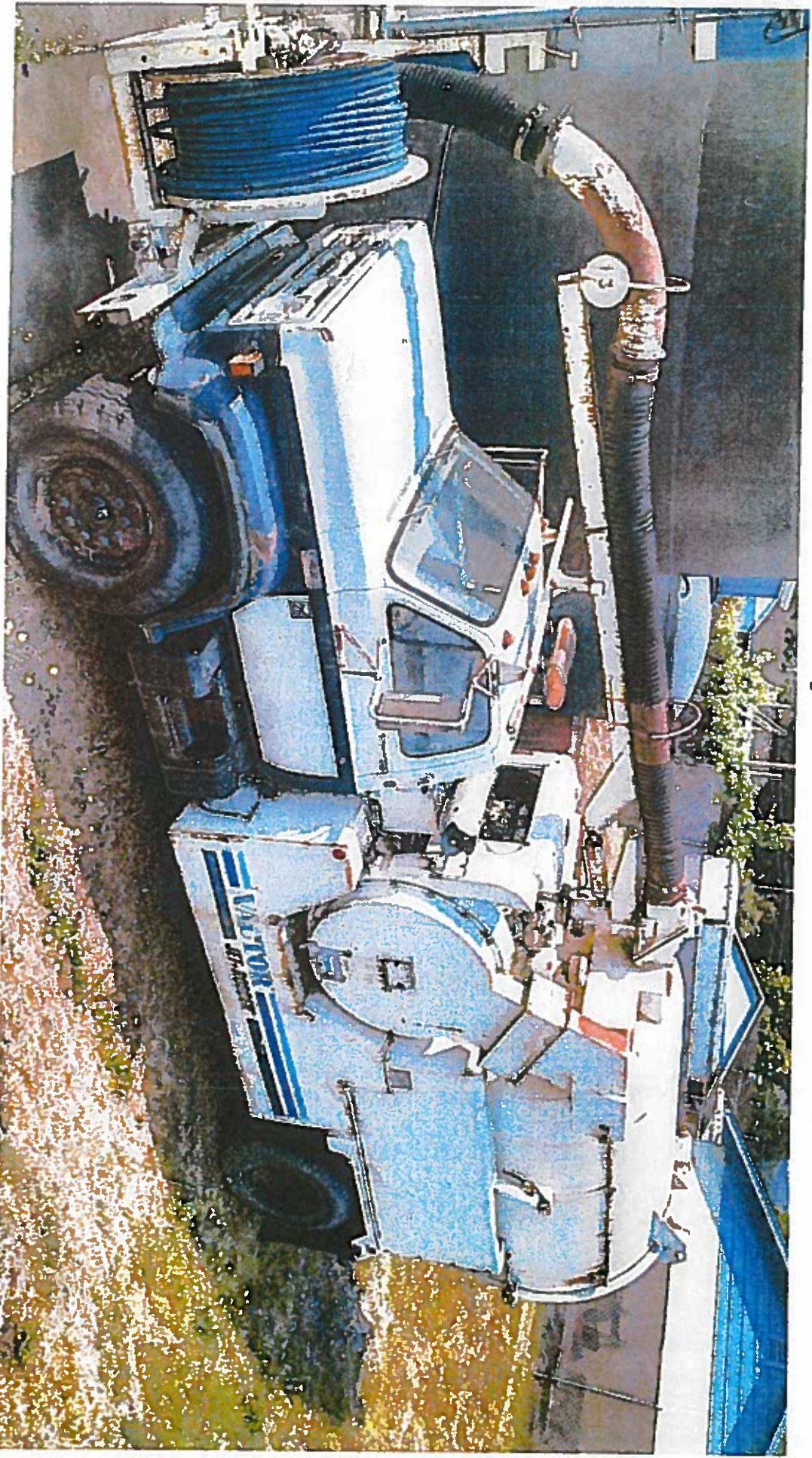
Get ahead of the curve, proactively replace infrastructure leveraging State and Federal resources

Miscellaneous Equipment (annual):

- Dinsmore telemetry system & SCADA * \$4,000
- Replacement utility vehicle \$6,000
- Replacement filter media \$5,000
- Asphalt patching equip. \$8,000
- Replacement vactor truck \$23,000

* Dinsmore Telemetry & SCADA will need to be placed as a Dinsmore Zone Cost, leading to a reduction in this overall item.

Rio Dell City Vactor Truck



GOAL

A fully funded system

- CIP RESERVE BUILD PER GHD CIP 2015
 - Annually fund the CIP \$400,000 to \$1,400,000 per year.

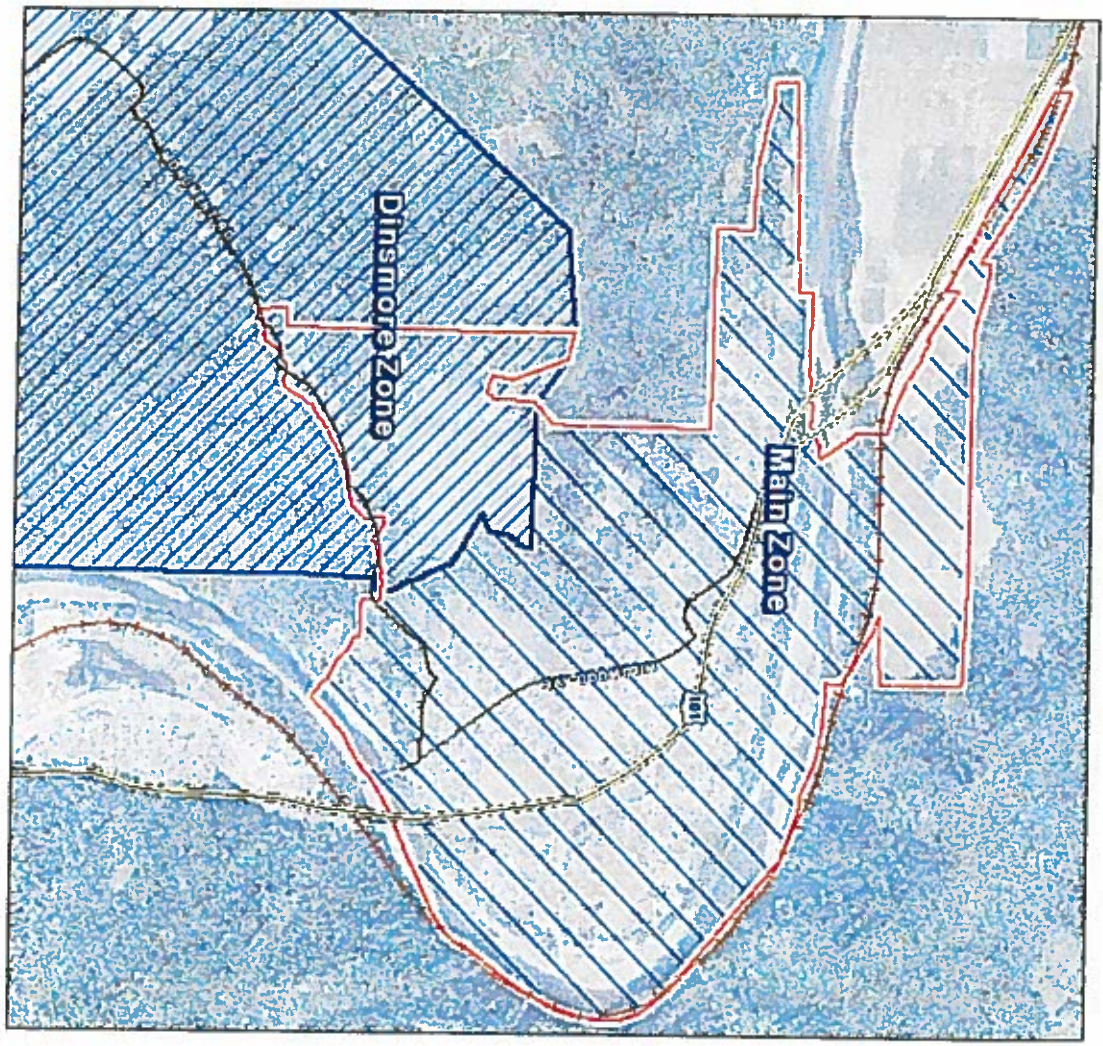
GOAL

No subsidy of outer zones by core customers

- DINSMORE ZONE FUND
\$22,693
 - ANNUAL BOOSTER ELECTRICITY \$1,700
 - WATER MAIN AND SERVICE REPLACEMENT PROJECT, MONUMENT HYDRANT, OLD RANCH ROAD \$10,177
 - CAPITAL IMPROVEMENT RESERVE \$10,816

*Item omitted from spreadsheet: Dinsmore Tank Telemetry and SCADA: \$4,000





Project Name: Rio Dell Water Pressure Zones
 Date: 3/1/2015
 Job Number: 14-10147
 Revision: A
 Date: 3/1/2015

City of Rio Dell
 Rio Dell Water Pressure Zones
 Figure 1

Scale: 1" = 1000'
 0 1000 2000 3000 4000 5000
 Feet

North Arrow

Legend:
 Dismore Zone
 Main Zone
 Water Main
 Rio Dell City Line

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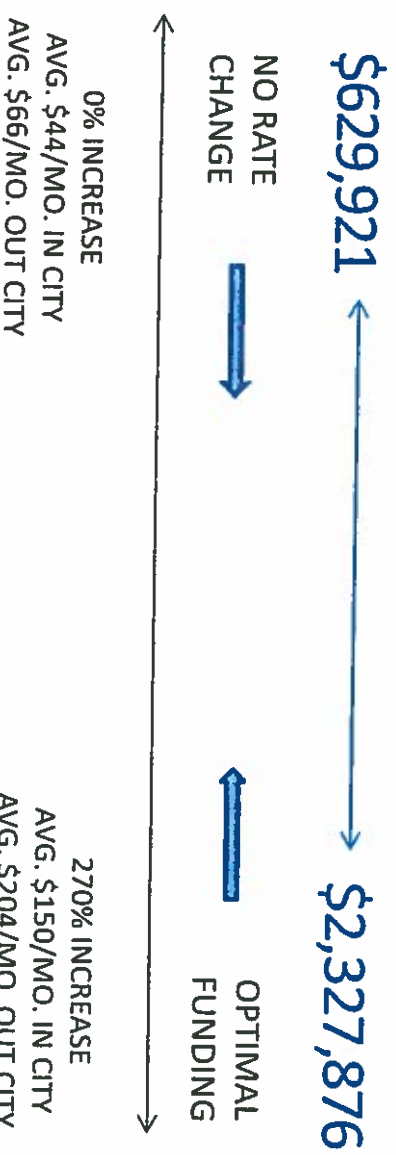
History of Past Rate Adjustments

DATE	ORDINANCE/RESOLUTION	RATE	MAXIMUM ALLOWANCE (IN UNITS)	WATER OPERATIONS	CAPITAL/DEBT SERVICE
01/08/70	ORDINANCE NO. 72	\$5.18 BASE RATE + \$0.77 6-10 UNITS	5		
05/06/80	ORDINANCE NO. 151	\$6.18 BASE RATE + \$0.85 6-10 UNITS	5		
10/07/80	RESOLUTION NO. 323	\$6.58 BASE RATE + \$1.00 6-10 UNITS	5		
01/27/87	ORDINANCE NO. 189	\$11.00 BASE RATE + \$1.50 6-10 UNITS	5		
08/06/96	ORDINANCE NO. 232	\$13.00 BASE RATE + \$1.72 EA. UNIT OVER 6	6	\$8.90	\$4.50
05/21/02	RESOLUTION NO. 810	\$17.00 BASE RATE + \$2.00 5-14 UNITS	4	\$12.50	\$4.50
02/15/05	RESOLUTION NO. 888	\$22.00 BASE RATE + \$2.00 2-10 UNITS	1	\$17.50	\$4.50
04/15/08	RESOLUTION NO. 998	\$22.66 (3% INCREASE) + \$2.06 2-10 UNITS	1	\$18.16	\$4.50
07/01/09		\$23.33 (3% INCREASE) + \$2.12 2-10 UNITS	1	\$18.83	\$4.50
07/01/10		\$24.02 (3% INCREASE) + \$2.18 2-10 UNITS	1	\$19.52	\$4.50
07/01/11		\$24.74 (3% INCREASE) + \$2.24 2-10 UNITS	1	\$20.24	\$4.50
07/01/12	RESOLUTION NO. 1168	\$25.48 (3% INCREASE) + \$2.30 2-10 UNITS	1	\$20.98	\$4.50
07/01/13	RESOLUTION NO. 1247	\$26.24 (3% INCREASE) + \$2.36 2-10 UNITS	1	\$21.74	\$4.50
07/01/14		\$27.03 (3% INCREASE) + \$2.44 2-10 UNITS	1	\$22.53	\$4.50
07/01/15		\$27.84 (3% INCREASE) + \$2.51 2-10 UNITS	1	\$23.34	\$4.50

GOAL

DETERMINING THE FUNDING LEVEL

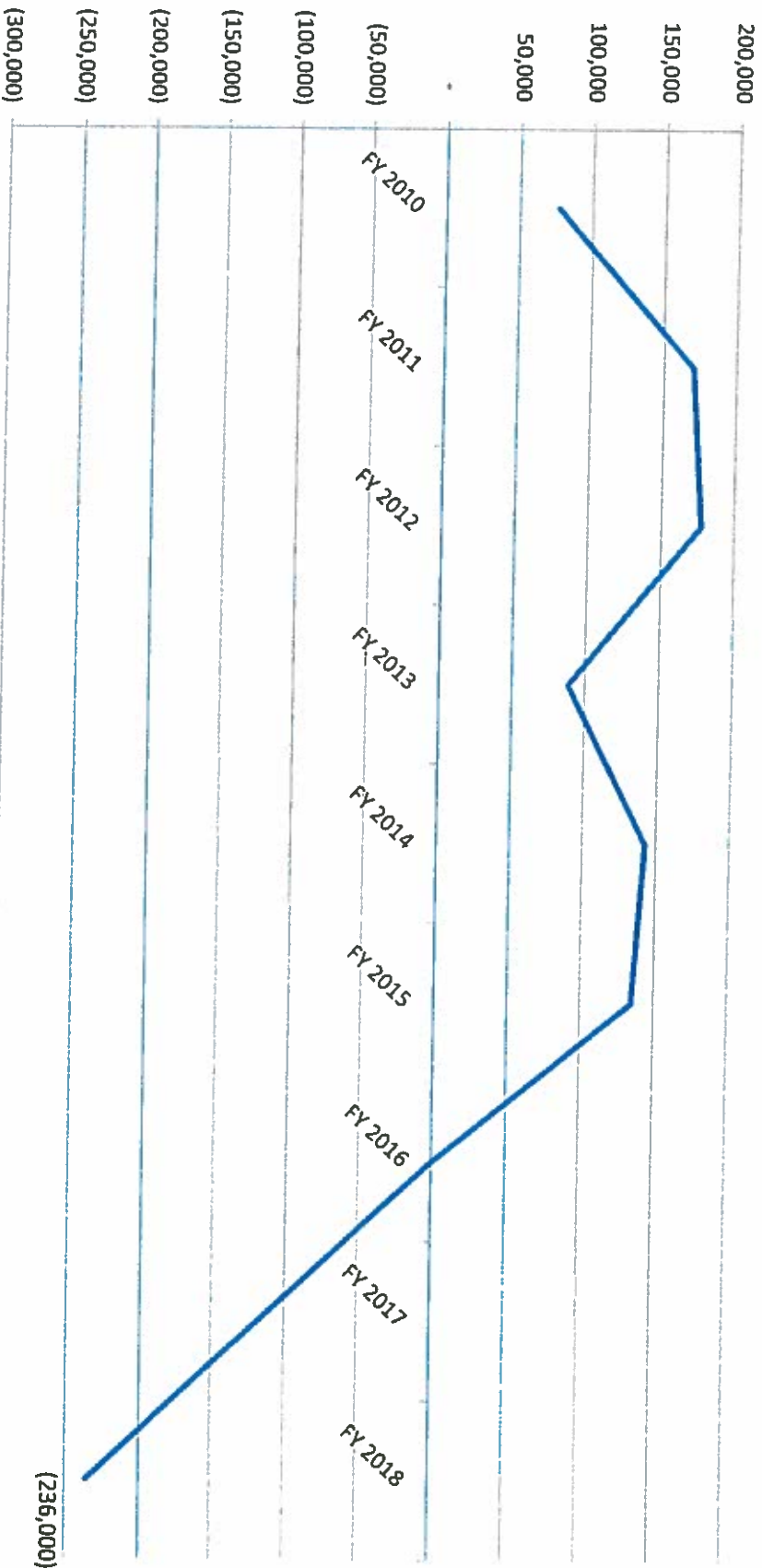
REVENUE GOALS



GOAL

Sustainable Operations

Water Ops Fund



GOAL

NO RATE INCREASES?

- CURRENT REVENUES \$629,972
- PROVIDES FOR
- COVENANT AGREEMENT FOR WATER DEBT SERVICE
 - ANNUAL PAYMENT \$136,000
 - 5 YEAR ANNUAL RESERVE REQUIREMENT \$27,200
 - LOWERED LEVELS OF PERSONNEL AND OPERATIONS COSTS
 - DEPARTMENTAL BUDGETS REDUCED 28% ACROSS THE BOARD
 - NO REPAIRS OR IMPROVEMENTS

GOAL

NO RATE INCREASE?

- **TOTAL WATER FUND BUDGET REDUCTIONS (\$177,650)**
 - **WATER OPERATIONS BUDGET REDUCTION (\$101,100)**
 - CITY MANAGER WATER BUDGET REDUCTION (\$35,300)
 - CITY COUNCIL WATER BUDGET REDUCTION (\$750)
 - FINANCE DEPT WATER BUDGET REDUCTION (\$38,100)
 - BUILDINGS AND GROUNDS WATER BUDGET REDUCTION (\$2,400)

GOAL

NO RATE INCREASE?

- NO INCREASE IN RATES TO CITIZENS
 - AVERAGE COST \$44 IN-CITY CUSTOMERS (\$66 OUT OF CITY)
- ALL WATER FUND RESERVES REMAIN AT ZERO
 - WATER EQUIPMENT AND ASSETS DETERIORATE OVER TIME
- WATER RATES DON'T MEET MHI LEVELS
 - CITY NOT IN POSITION FOR FEDERAL AND STATE GRANTS
- PERSONNEL AND OPERATING COSTS ARE REDUCED
 - LOWERED STAFFING LEVELS CONTRIBUTE EROSION OF SYSTEM
- WATER FUNDS BECOME INSOLVENT
 - LACK OF REPAIRS AND MAINTENANCE LEADS TO BROKEN WATER SYSTEM
 - NO ACCESS TO FUNDING SOURCES

GOAL

OPTIMAL SCENARIO (CIP)?

- TOTAL REVENUE \$2,327,876

PROVIDES FOR

- PRIORITY CIP 5 YEAR RESERVE BUILD (20% PER YEAR)
 - INFILTRATION GALLERY EXTENSION
 - PRE 1950 4" PIPE OR SMALLER REPLACEMENT
 - PAINTER STREET TANK REPLACEMENT
 - WATER METERS
 - MISC. EQUIPMENT
- CIP RESERVE
 - PROVIDES CIP GRANT MATCH IN 5 YEARS
 - PROVIDES GHD RECOMMENDED CIP RESERVE BUILDING
- 5 YEAR DINSMORE ZONE CIP RESERVE BUILT UP FOR 20% GRANT MATCH



GOAL

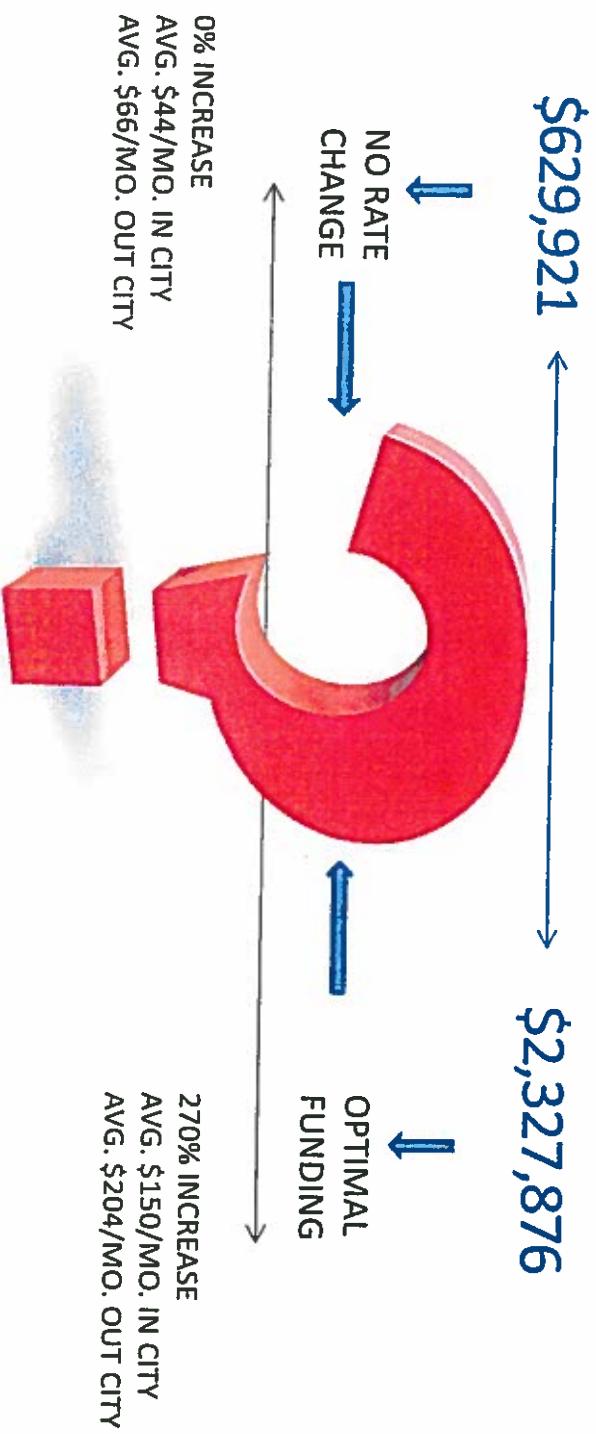
OPTIMAL SCENARIO (SUMMARIZED)?

- ALL WATER INFRASTRUCTURE PROBLEMS SOLVED (but at what cost?)

GOAL


DETERMINING THE FUNDING LEVEL


Revenue Goals



For Meeting of: August 4, 2015

To: City Council

From: Kevin Caldwell, Community Development Director 

Through: Kyle Knopp, City Manager 

Date: July 27, 2015

Subject: Introduction and first reading of Ordinance No. 337-2015 establishing Chapter 15.20 of the Rio Dell Municipal Code relating to expedited permitting procedures for small residential rooftop solar systems pursuant to AB 2188.

Recommendation:

That the City Council:

1. Receive staff's report regarding the proposed text amendment;
2. Open the public hearing, receive public input, close the public hearing and deliberate;
3. Introduce (first reading) Ordinance No. 337-2015 establishing Chapter 15.20 of the Rio Dell Municipal Code relating to expedited permitting procedures for small residential rooftop solar systems pursuant to AB 2188 and continue consideration, approval and adoption of the proposed Ordinance to your meeting of August 18, 2015.

BACKGROUND/DISCUSSION:

Section 65850.5(a) of the California Government Code provides that it is the policy of the State to promote and encourage the installation and use of solar energy systems by limiting obstacles to their use and by minimizing the permitting costs of such systems. In furtherance of that objective, Section 65850.5(g)(1) of the California Government Code requires that, on or before

September 30, 2015, every city, county, or city and county must adopt an ordinance that creates an expedited, streamlined permitting process for small residential rooftop solar energy systems. The proposed Ordinance is based on a model template provided by the California Building Official (CALBO) and is included as Attachment 1.

The City currently expedites the review of complete applications by reviewing and issuing permits typically within five (5) working days. Apparently some jurisdictions require a discretionary (Use Permit or Special Permit) review process for the installation of solar PV systems. The City does not require discretionary review of solar permit applications. Although AB 2188 calls for an expedited permit process, it did not specify how many days a jurisdiction has to review a complete application and issue a Building Permit. However, the *California Solar Permitting Handbook* recommends over-the-counter or same day plan review and permit issuance if possible. A maximum three (3) day timeframe for review and approval or denial is recommended where “over-the-counter” approval is not available. An issue affecting a jurisdiction’s ability to expedite the permit process for the solar PV systems is coordination with the local fire agency. Given the fact that the City’s fire protection services are provided by a volunteer fire district, it becomes more difficult for the City to expedite the permit process. In 2013 the Building Codes were amended to address concerns of fire agencies, including roof access/walkways, disconnect switches and warning signage/labels.

In order to facilitate an expedited permit process, Section 65850.5(g)(1) requires that jurisdictions identify submittal requirements and develop a checklist of all the submittal requirements for small rooftop solar systems. The *California Solar Permitting Handbook* includes submittal requirements and an eligibility checklist that satisfies this requirement. The submittal requirements and eligibility checklist are included as Attachments 2 and 3.

In regards to permitting costs, Section 66015 of the Government Code limits the amount local enforcing agencies can charge for solar PV permit fees. Below are the permit fee limits for solar PV systems pursuant to Section 66015:

Residential		Commercial	
15 kW or less	\$500	50 kW or less	\$1000
More than 15 kW	\$500 + \$15 per kW above 15 kW	50 kW – 250 kW	\$1000 + \$7 per kW above 50 kW
		More than 250 kW	\$2400 + \$5 per kW above 250 kW

Below is a copy of the permit fees pursuant to the City's current adopted fee schedule for a solar PV system valued at \$7,000.00. Note that the Valuation only applies to the State Seismic fee.

Rio Dell Fees	
Permit Issuance	\$24.00
Photovoltaic (PV) Systems	\$95.50
Plan Check (65% of Permit Fee)	\$62.07
Subtotal	\$181.57
Administrative Fee (66%)	\$119.50
State Seismic Fee (.00012 of Valuation)	\$.70
Senate Bill 1473 (CBSC) \$1.00 per \$25,000	\$1.00
Continuing Education Fee (\$.04)	\$1.20
Technology Fee (\$.09)	\$2.71
Total:	\$306.68

The City's Permit Fees for solar PV systems are in compliance with Section 66015 of the Government Code.

The proposed ordinance codifies the requirements of AB 2188 and Section 65850 et. seq. of the Government Code

FISCAL IMPACT:

There is no anticipated fiscal impact as the costs would be recovered through existing building permit fees.

ATTACHMENTS:

- Attachment 1: Ordinance No. 337-2015 establishing Chapter 15.20 of the Rio Dell Municipal Code relating to expedited permitting procedures for small residential rooftop solar systems pursuant to AB 2188.
- Attachment 2: Submittal Requirements
- Attachment 3: Eligibility Checklist

ORDINANCE NO. 337 – 2015



**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF RIO DELL
ESTABLISHING CHAPTER 15.20 TO THE RIO DELL MUNICIPAL CODE RELATING TO
EXPEDITED PERMITTING PROCEDURES FOR SMALL RESIDENTIAL ROOFTOP SOLAR
SYSTEMS**

THE CITY COUNCIL OF THE CITY OF RIO DELL ORDAINS AS FOLLOWS:

WHEREAS, Subsection (a) of Section 65850.5 of the California Government Code provides that it is the policy of the State to promote and encourage the installation and use of solar energy systems by limiting obstacles to their use and by minimizing the permitting costs of such systems; and

WHEREAS, Subdivision (g)(1) of Section 65850.5 of the California Government Code provides that, on or before September 30, 2015, every city, county, or city and county shall adopt an ordinance, consistent with the goals and intent of subdivision (a) of Section 65850.5, that creates an expedited, streamlined permitting process for small residential rooftop solar energy systems.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Rio Dell does hereby ordain as follows:

Section 1. Chapter 15.20 is added to the Rio Dell Municipal Code to read in full as follows:

Chapter 15.20 Small Residential Rooftop Solar Energy System Review Process.

15.20.010 Definitions

(1) The following words and phrases as used in this section are defined as follows:

"Electronic submittal" means the utilization of one or more of the following:

(a) E-mail, the Internet, facsimile.

"Small residential rooftop solar energy system" means all of the following:

(b) A solar energy system that is no larger than 10 kilowatts alternating current nameplate rating or 30 kilowatts thermal.

(c) A solar energy system that conforms to all applicable state fire, structural, electrical, and other building codes as adopted or amended by the City and paragraph (iii) of subdivision (c) of Section 714 of the Civil Code, as such section or subdivision may be amended, renumbered, or redesignated from time to time.

(d) A solar energy system that is installed on a single or duplex family dwelling.

(e) A solar panel or module array that does not exceed the maximum legal building height as defined by the authority having jurisdiction.

(f) "Solar energy system" has the same meaning set forth in paragraphs (1) and (2) of subdivision (a) of Section 801.5 of the Civil Code, as such section or subdivision may be amended, renumbered, or redesignated from time to time.

15.20.020 Procedural Requirements

(1) Section 65850.5 of the California Government Code provides that, on or before September 30, 2015, every city, county, or city and county shall adopt an ordinance that creates an expedited, streamlined permitting process for small residential rooftop solar energy systems.

(2) Section 65850.5 of the California Government Code provides that in developing an expedited permitting process, the City, shall adopt a checklist of all requirements with which small rooftop solar energy systems shall comply to be eligible for expedited review. The Building Official is hereby authorized and directed to develop and adopt such checklist.

(a) The checklist shall be published on the City's Internet website. The applicant may submit the permit application and associated documentation to the City's Building Division by personal, mailed, or electronic submittal together with any required permit processing and inspection fees. In the case of electronic submittal, the electronic signature of the applicant on all forms, applications and other documentation may be used in lieu of a wet signature.

(b) Prior to submitting an application, the applicant shall:

(i) Verify to the applicant's reasonable satisfaction through the use of standard engineering evaluation techniques that the support structure for the small residential rooftop solar energy system is stable and adequate to transfer all wind, seismic, and dead and live loads associated with the system to the building foundation; and

(ii) At the applicant's cost, verify to the applicant's reasonable satisfaction using standard electrical inspection techniques that the existing electrical system including existing line, load, ground and bonding wiring as well as main panel and subpanel sizes are adequately sized, based on the existing electrical system's current use, to carry all new photovoltaic electrical loads.

(c) For a small residential rooftop solar energy system eligible for expedited review, only one inspection shall be required, which shall be done in a timely manner and may include a consolidated inspection by the Building Official and fire chief. If a small residential rooftop solar energy system fails inspection, a subsequent inspection is authorized; however the subsequent inspection need not conform to the requirements of this subsection.

(d) An application that satisfies the information requirements in the checklist, as determined by the Building Official, shall be deemed complete. Upon receipt of an incomplete application, the Building Official shall issue a written correction notice detailing all deficiencies in the application and any additional information required to be eligible for expedited permit issuance.

(e) Upon confirmation by the Building Official of the application and supporting documentation being complete and meeting the requirements of the checklist, the Building Official shall administratively approve the application and issue all required permits or authorizations. Such approval does not authorize an applicant to connect the small residential rooftop system to the local utility provider's electricity grid. The applicant is responsible for obtaining such approval or permission from the local utility provider.

Section 2. Severability

If any provision of the ordinance is invalidated by any court of competent jurisdiction, the remaining provisions shall not be affected and shall continue in full force and effect.

Section 3. Limitation of Actions

Any action to challenge the validity or legality of any provision of this ordinance on any grounds shall be brought by court action commenced within ninety (90) days of the date of adoption of this ordinance.

Section 4. Effective Date

This ordinance becomes effective thirty (30) days after the date of its approval and adoption.

I HEREBY CERTIFY that the forgoing Ordinance was duly introduced at a regular meeting of the City Council of the City of Rio Dell on August 4 2015 and furthermore the forgoing Ordinance was passed, approved and adopted at a regular meeting of the City Council of the City of Rio Dell, held on the August 18, 2015 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Frank Wilson, Mayor

ATTEST:

I, Karen Dunham, City Clerk for the City of Rio Dell, State of California, hereby certify the above and foregoing to be a full, true and correct copy of Ordinance No. 337-2015 which was passed, approved and adopted at a regular meeting of the City Council of the City of Rio Dell, held on the August 18, 2015.

Karen Dunham, City Clerk, City of Rio Dell

Submittal Requirements Solar Photovoltaic Installations 10 kW or Less in One- and Two-Family Dwellings

This information is intended to guide applicants through a streamlined permitting process for solar photovoltaic (PV) projects 10 kW in size or smaller. This handout provides information about submittal requirements for plan review, required fees and inspections.

Approval Requirements

The following permits are required to install a solar PV system with a maximum power output of 10 kW or less:

- Electrical Permit
- Building Permit if structural alterations or modifications are required to the roof.

Submittal Requirements

- Completed permit application form. This permit application form is available at City Hall or can be downloaded at riodellicity.com.
- Demonstrate compliance with the eligibility checklist for expedited permitting. The checklist is available at City Hall or can be downloaded at riodellicity.com.
- A completed Electrical Plan. The Electrical Plan must include the following:
 - ◆ *Locations of main service or utility disconnect; and*
 - ◆ *Total number of modules, number of modules per string and the total number of string; and*
 - ◆ *Make and model of inverter(s) and/or combiner box if used; and*
 - ◆ *One-line diagram of system; and*
 - ◆ *Specify grounding/bonding, conductor type and size, conduit type and size and number of conductors in each section of conduit; and*
 - ◆ *If batteries are to be installed, include them in the diagram and show their locations and venting; and*
 - ◆ *Equipment cut sheets including inverters, modules, AC and DC disconnects, combiners and wind generators; and*
 - ◆ *Labeling of equipment as required by CEC, Sections 690 and 705; and*
 - ◆ *Plot Plan showing the arrangement of panels on the roof or ground, north*

arrow, lot dimensions and the distance from property lines to adjacent buildings/structures (existing and proposed).

- A roof plan showing roof layout, PV panels and the following fire safety items: approximate location of roof access point, location of code-compliant access pathways, PV system fire classification and the locations of all required labels and markings. Examples of clear path access pathways are available in the State Fire Marshal Solar PV Installation Guide.
<http://osfm.fire.ca.gov/pdf/reports/solarphotovoltaicguideline.pdf>.
- Structural Information: If the existing roofing material is **not** tile or there is **not** more than one layer of composition shingles, plans shall be provided that are of sufficient detail and scope to demonstrate the required load path to ground. (Roof framing plan, cross-sections and details as necessary). In addition, the following information must be provided:

- ◆ *Weight of panels, support locations and method of attachment*

If the existing roofing material is tile or there is more than one layer of composition shingles, alterations may be required to the existing roof structure to support the additional loads imposed from the module system. Structural designs and drawings require a licensed Architect or Engineer to prepare plans and calculations and properly certify in conformance with section 5537(b) of the California Business and Professions Code.

If the existing roofing material is tile or there is more than one layer of composition shingles, provide structural drawings and calculations stamped and signed by a California-licensed Civil or Structural Engineer, along with the following information:

- ◆ *The type of roof covering and the number of roof coverings installed*
- ◆ *Type of roof framing, size of members and spacing*
- ◆ *Weight of panels, support locations and method of attachment*
- ◆ *Framing plan and details for any work necessary to strengthen the existing roof structure*
- ◆ *Site-specific structural calculations*
- ◆ *Where an approved racking system is used, provide documentation showing manufacturer of the rack system, maximum allowable weight the system can support, attachment method to the roof or ground and product evaluation information or structural design for the rack system.*

Plan Review

Permit applications can be submitted to the Building Division in person at 675 Wildwood Avenue and/or electronically to Karen Dunham at admin1@riodellicity.com or Kevin Caldwell at kcaldwell@riodellicity.com. Complete applications are typically reviewed and approved or denied

within three (3) working days.

Fees

Below is a copy of the permit fees pursuant to the City's current adopted fee schedule for a solar PV system valued at \$7,000.00. Note that the Valuation only applies to the State Seismic fee.

Rio Dell Fees	
Permit Issuance	\$24.00
Photovoltaic (PV) Systems	\$95.50
Plan Check (65% of Permit Fee)	\$62.07
Subtotal	\$181.57
Administrative Fee (66%)	\$119.50
State Seismic Fee (.00012 of Valuation)	\$.70
Senate Bill 1473 (CBSC) \$1.00 per \$25,000	\$1.00
Continuing Education Fee (\$.04)	\$1.20
Technology Fee (\$.09)	\$2.71
Total:	\$306.68

A \$100.00 deposit is required at the time the application is submitted. The balance is due and payable at the time the permit is issued. The City's Permit Fees for solar PV systems are in compliance with Section 66015 of the Government Code.

Inspections

Once all permits to construct the solar installation have been issued and the system has been installed, it must be inspected before final approval is granted for the solar system. On-site inspections can be scheduled by contacting the Building Division by telephone at (707) 764-3532 or electronically to Karen Dunham at admin1@riodelcity.com or Kevin Caldwell at kcaldwell@riodelcity.com. Inspection requests received within business hours are typically scheduled for the next business day.

Permit holders must be prepared to show conformance with all technical requirements in the field at the time of inspection. The inspector will verify that the installation is in conformance with applicable code requirements and with the approved plans.

The following inspection checklist provides an overview of common points of inspection that the applicant should be prepared to show compliance.

- *Number of PV modules and model number match plans and specification sheets number match plans and specification sheets.*
- *Array conductors and components are installed in a neat and workman-like manner.*
- *PV array is properly grounded.*
- *Electrical boxes are accessible and connections are suitable for environment.*

- *Array is fastened and sealed according to attachment detail.*
- *Conductors ratings and sizes match plans.*
- *Appropriate signs are properly constructed, installed and displayed, including the following.*
 - ◆ *Sign identifying PV power source system attributes at DC disconnect*
 - ◆ *Sign identifying AC point of connection*
 - ◆ *Sign identifying switch for alternative power system*
- *Equipment ratings are consistent with application and installed signs on the installation, including the following.*
 - ◆ *Inverter has a rating as high as max voltage on PV power source sign.*
 - ◆ *DC-side overcurrent circuit protection devices (OCPDs) are DC rated at least as high as **max** voltage on sign.*
 - ◆ *Switches and OCPDs are installed according to the manufacturer's specifications (i.e., many*
 - ◆ *600VDC switches require passing through the switch poles twice in a specific way).*
 - ◆ *Inverter is rated for the site AC voltage supplied and shown on the AC point of connection sign. OCPD connected to the AC output of the inverter is rated at least 125% of maximum current on sign and is no larger than the maximum OCPD on the inverter listing label.*
 - ◆ *Sum of the main OCPD and the inverter OCPD is rated for not more than 120% of the bus bar rating.*

Departmental Contact Information

For additional information regarding this permit process, please consult the City website at riodellicity.com or by contacting the Building Division by telephone at (707) 764-3532 or electronically to Karen Dunham at admin1@riodellicity.com or Kevin Caldwell at kcaldwell@riodellicity.com.



**Eligibility Checklist for Expedited
 Solar Photovoltaic Permitting for One- and Two-Family Dwellings**
Source: California Solar Permitting Guidebook

General Requirements

- System size is 10 kW AC CEC rating or less Y N
- The solar array is roof-mounted on a one- or two-family dwelling or accessory structure Y N
- The solar panel/module arrays will not exceed the maximum legal building height. (Residences 35 feet; accessory structures 15 feet). Y N
- Solar system is utility interactive (grid-tied) and without battery storage Y N
- Permit application is complete and attached Y N

Electrical Requirements

- No more than four photovoltaic module strings are connected to each Maximum Power Point Tracking (MPPT) input where source circuit fusing is included in the inverter Y N
 - ◆ No more than strings per MPPT input where source circuit fusing is not included Y N
 - ◆ Fuses (if needed) are rated to the series fuse rating of the PV module Y N
 - ◆ No more than one noninverter-integrated DC combiner is utilized per inverter Y N
- For central inverter systems: No more than two inverters are utilized Y N
- The PV system is interconnected to a single-phase AC service panel of nominal 120/220 Vac and bus bar rating of 225 A or less Y N
- The PV system is connected to the load side of the utility distribution equipment Y N
- A completed electrical plan pursuant to the *Submittal Requirements Handout* and supporting documentation is attached Y N

Structural Requirements

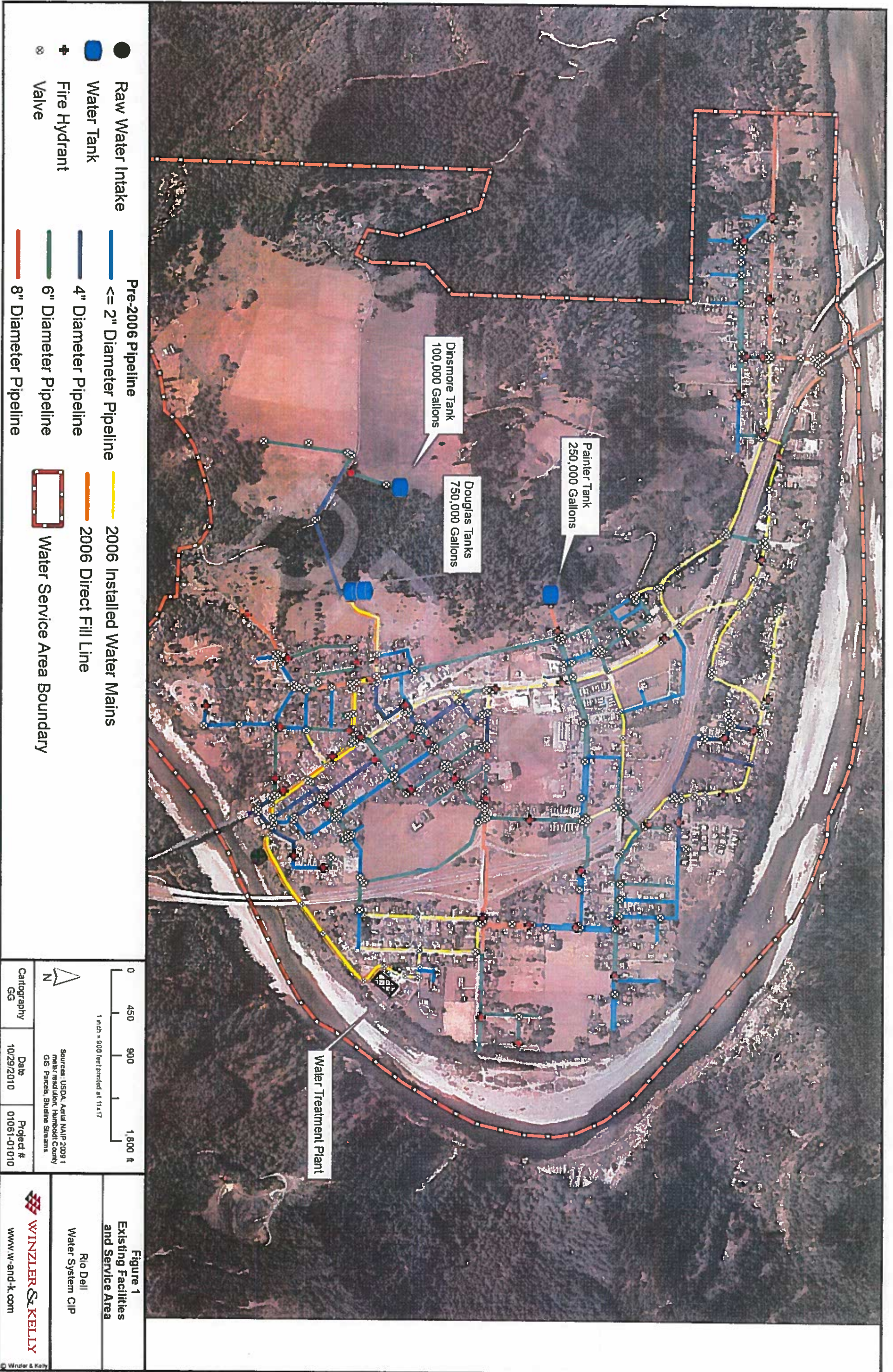
- Complete structural information, including calculations and plans (if required) pursuant to the *Submittal Requirements Handout* is attached Y N

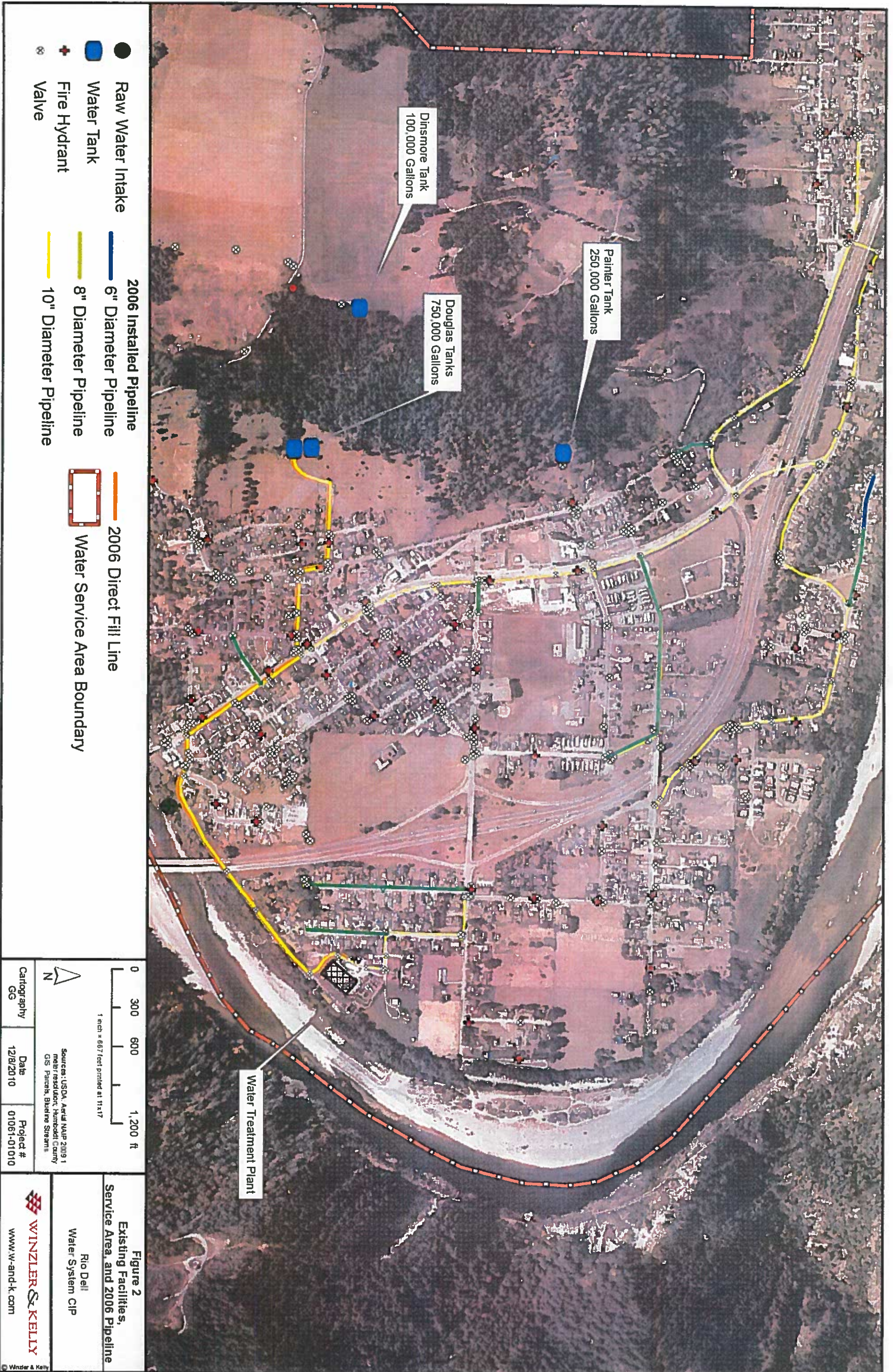
Fire Safety Requirements

- Clear access pathways are provided Y N
- Fire classification solar system is provided Y N
- All required markings and labels are provided Y N
- A diagram of the roof layout of all panels, modules, clear access pathways and approximate locations of electrical disconnecting means and roof access points is completed and attached Y N

Notes:

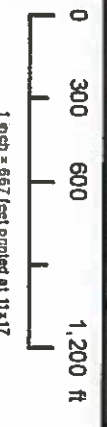
1. These criteria are intended for expedited solar permitting process.
2. If any items are checked NO, revise design to fit within the Eligibility Checklist, otherwise permit application may go through standard permit process.





- Raw Water Intake
- Water Tank
- ⊕ Fire Hydrant
- ⊗ Valve
- 6" Diameter Pipeline
- 8" Diameter Pipeline
- 10" Diameter Pipeline

- 2006 Direct Fill Line
- Water Service Area Boundary




 Sources: USDA, Aerial NAIP 2009 1 meter resolution; Humboldt County GIS; Parcks, Blueline Streams

Cartography	Date	Project #
GG	12/8/2010	01061-01010

Figure 2
 Existing Facilities,
 Service Area, and 2006 Pipeline
 Rio Dell
 Water System CIP



WINZLER & KELLY
 www.w-and-k.com

Table B.1: Rio Dell Water Treatment Plant CIP Inventory - 2014

Treatment Plant											
Asset - Treatment Plant	Description	Installation Date	Expected Useful Life	Remaining Useful Life	Condition	Service History	Adjusted Useful Life	Importance (Low, Medium, High, Critical)	Redundancy	Priority (1=highest) (5=lowest)	TOTAL 2014 COST
Raw Water Intake											
Infiltration Gallery Intake	596 ft of piping	2006	60	52 new	new	annual		c	yes		1 \$ 1,000,000
Piping											
Raw Water Intake Pumps	(2) 15 HP + (1) 30 HP + (1) Myers	2006	15	7 new	new	annual		c	yes		1 \$ 107,926
Wet Well	appx. 225 SF building	2006	50	42 new	new	none		c	none		1 \$ 103,308
Raw Water Foremain	10-inch (appx. 225') 10-inch gravity fed from Douglas Tank	2006	50	42 new	new	none		c	none		1 \$ 232,547
Backwash System	(appx. 200') allows for bypass of flocculator, controlled from panel based on NTUs	2006	50	42 new	new	annual inspections		h	none		2 \$ 20,662
Auma Actuators		2006	15	7 new	new	quarterly		m	none		4 \$ 7,461
Coagulation/Flocculation											
Temperature/pH Meter	Hach PHD differential pH	2006	15	7 new	new	quarterly		m	none		4 \$ 264
Raw Water Turbidity Meter	Hach Surface Scatter 6 (Raw)	2001	15	2 good	good	quarterly		m	none		2 \$ 5,432
Streaming Current Monitor	Chemtrac SCM2500XRD	2006	15	7 excellent	excellent	quarterly		m	none		2 \$ 12,334
Chlorine Solution Tank	500 gal Tank Solenoid Metering Pump (Premia 75 - 0.5gph)	2006	50	42 excellent	excellent	quarterly		h	none		1 \$ 2,296
Sodium Hypochlorite Injection		2006	15	7 new	new	quarterly		h	none (only 1 unit)		1 \$ 1,211
Chlorine Analyzer	Hach CL17	2006	15	7 excellent	excellent	quarterly		c	none (only 1 unit)		1 \$ 3,420
Coagulant Solution Tank	350 gal Tanks (1 for summer, 1 for winter) Liquid alum-polymer coagulant blend from NTU Technologies, Inc.; solenoid metering pump (.5 gph max); Premia	2001	60	47 excellent	excellent	quarterly		h	none (only 1 unit per season)		1 \$ 2,009
ProPac 932 Polymer Injection		2009	15	10 excellent	excellent	quarterly		h	none (only 1 unit per season)		1 \$ 2,009
ProPac 9700 Polymer Injection	Liquid alum-polymer coagulant blend from NTU Technologies, Inc.; solenoid metering pump (1 gph max); Premia	2006	15	7 excellent new, bad seal	excellent	quarterly		h	none (only 1 unit)		1 \$ 2,870
Flash Mixer	Hayward Gordon Model HIM-20-10 (2hp)	2006	20	12 seal	new, bad	biannual		c	None		1 \$ 17,218
Flocculator Vertical Paddle Wheel Motors	slow turn wood paddle wheels	2001	20	7 good	good	regular for motors		l	None		5 \$ 517
Flocculator Electric Actuating Sludge Wasting Valve	6-in Bray Series 70 (Open/Close)	2001	15	2		biannual		l			5 \$ 1,722
Clarified Water Tanks	(2) 2,500 gal Tanks; came with RELIANT	2001	60	47 good	good	annual		l	2 units		5 \$ 8,035
Filtration											
Transfer Pumps	pump to filters/throttles back w/filter influent valves; (2) split case horiz. Centrifugal pumps (Baldor Model 182JM motors & Goulds Model 3656 pump w/6.75" impeller) - 1725 RPM, 3HP	2001	20	7 good	good	2x/year		l	yes; 1 duty/1 standby? Both on at same time		5 \$ 9,183

Asset - Treatment Plant	Description	Installation Date	Expected Useful Life	Remaining Useful Life	Condition	Service History	Adjusted Useful Life	Importance (Low, Medium, High, Critical)	Redundancy	Priority (1=highest) (5=lowest)	TOTAL 2014 COST
Clarified Water Turbidity Meter	continuously measured at each filter outlet (HACH 1720D)	2001	15	2 good	good	quarterly	1	l	none (six total)	4	\$ 2,984
Clarified Water Turbidity Meter	continuously measured at each filter outlet (HACH 1720E)	2006	15	7 good	good	quarterly	1	l	none (six total)	4	\$ 2,984
Clarified Water Flowmeters	McCrometer MC-U3 Propeller (4-inch) on Filters 3 and 4	2006	15	7 good	good	1x/year	c	c	none	1	\$ 3,214
Clarified Water Flowmeters	McCrometer MC-U3 Propeller (4-inch) on Filters 1 and 2	2009	15	10 excellent	excellent	1x/year	c	c	none	1	\$ 3,214
Clarifier/Polishing Filters	Roberts Filter PACER II™ Dual Treatment Filters (2 units total installed in 2001); recoded in 2006	2001	50	37 good	good	1x/year	c	c	none; filter loading rates would be exceeded w/1 down	1	\$ 803,509
Clarifier/Polishing Filters	Roberts Filter PACER II™ Dual Treatment Filters (2 units total in 2006)	2006	50	42 good	good	1x/year	c	c	none; filter loading rates would be exceeded w/1 down	1	\$ 803,509
Filter Media	Cobble, white sand, red sand, anthracite	2006	10	2 good	good	every 10 years	c	c	none	1	\$ 27,549
Chlorine Injection	Post Premia 75 Pumps (1 gph)	2006	15	7 good	good	quarterly	c	c	none	1	\$ 1,748
Chlorine Analyzer	Hach CL17	2006	15	7 good	good	quarterly	h	h	none	1	\$ 3,420
Clear Well	16,700 gal concrete clearwell	2006	100	92 good	good	1x/5 years	c	c	none	1	\$ 28,697
Finish Water Pump #1	Vertical turbine pumps with VFD (Goulds 350 gpm pumps w/ 640 gpm combined capacity)	2014	15	15 good	good	2x/year	c	c	none; demand exceeds single pump capacity	1	\$ 57,393
Finish Water Pump#2	Vertical turbine pumps with VFD (Goulds 350 gpm pumps w/ 640 gpm combined capacity)	2006	15	7 good	good	2x/year	c	c	none; demand exceeds single pump capacity	1	\$ 57,393
Effluent Flow Meters	Siemens Strans 10" flowmeter	2006	15	7 good	good	1x/year	h	h	none	1	\$ 7,461
Bray Valves	4" (4 four-inches), replaced 2014 from Item Below	2014	10	10 good	excellent	excellent	h	h	2 new ones + parts on shelf	1	\$ 7,723
Bray Valves	4", 6", & 8" (8 per filter; 1 8-inch per filter; 1 6-inch filter; 2 four-inches)	2001	10	2 good	good	excellent	h	h	2 new ones + parts on shelf	1	\$ 9,624
Bray Valves	4", 6", & 8" (8 per filter; 1 8-inch per filter; 1 6-inch filter; 6 four-inches)	2006	10	2 good	good	continuous	h	h	2 new ones + parts on shelf	1	\$ 17,347
Level Controllers	LC-115 for Filters 3&4	2006	15	7 good	good	1x/year	h	h		1	\$ 1,377
Level Controllers	LC-115 for Filters 1&2	2009	10	5 excellent	excellent	1x/year	h	h		1	\$ 1,377
Backwash System											\$ -
Backwash Pumps	Goulds Model 3656 (350 gpm, 3500 RPM, 7-7/8 inch Impeller)	2009	15	10 good	good	2x/year	m	m	yes	3	\$ 5,739
Backwash Tank	11,300 gal	2001	60	47 good	good	every 2 years	l	l	none	3	\$ 17,218
Bray Valve	1-4"	2014	10	10 good	good	every 2 years	m	m	none	1	\$ 1,200
Air Scour Blowers	1 for each filter (Filters 1&2)	2001	15	2 good	good	1x/year	m	m	4 units; yes	2	\$ 17,218
Air Scour Blowers	1 for each filter (Filters 3&4)	2006	15	7 good	good	1x/year	m	m	4 units; yes	2	\$ 17,218
SCADA System											\$ -

Asset - Treatment Plant	Description	Installation Date	Expected Useful Life	Remaining Useful Life	Condition	Service History	Adjusted Useful Life	Importance (Low, Medium, High, Critical)	Redundancy	Priority (1=highest) (5=lowest)	TOTAL 2014 COST
Red Lion HMI/PLC	Roberts Filter Group	2009	20	20	Excellent	as needed		c	none	1	\$ 22,957
Filter Controllers	for each filter server hardrives, power supplies, radio controls	2006	20	12	good	as needed		c	none	1	\$ 2,971
Aqua Sierra SCADA		2006	10	1	poor	as needed		m	none	2	\$ 6,000
Miscellaneous											\$ -
	Security fencing around plant; needs replacement	2006	40	32	good	as needed		m		3	\$ 34,436
	Fencing & security gates		40							3	\$ 11,479
	Working on lights for years, only a few work, need to replace fixtures	2013	40	39	excellent	as needed		m		4	\$ 86,090
	Yard lighting (overhead)		40							3	\$ 91,830
	Asphalt pavement	2013	40	39	excellent	as needed					
	New asphalt										
	Railing and stairs at plant in good condition; Filters 1 and 2 installed in 2001; Filters 3 and 4 installed in 2006	2006	50	42	good	as needed					
Grating, stairs, railings											
TOTAL											\$ 2,627,958

Table B.2: Rio Dell Water Storage Tank CIP Inventory - 2014

Storage Tanks													
Asset - Storage	Description	Installation Date	Expected Useful Life	Remaining Useful Life	Condition	Service History	Adjusted Useful Life	Importance (Low, Medium, High, Critical)	Redundancy	Priority (1=highest) (5=lowest)	TOTAL 2014 COST		
Douglas Storage Tanks													
.25 MG Redwood Tank	48" Diameter/19.5' to overflow pipe Epoxy coated bolted steel; 47.5"	1978	40	4	Good	1x/5 years; serviced in		low	none		5 \$	300,000	
0.5 MG Bolted Steel Tank	Diameter/37' to Overflow Weir Cone	2006	75	67	Excellent	1x/5 years; serviced in		critical	none		1 \$	286,967	
Recirculation Pump Station	(2) 5 HP pumps (Not currently used) Houses chlorine, booster pumps, and recirculation pumps	2006	30	22	Excellent	1x/year		low	1 duty; 1 standby		5 \$	97,569	
Wood Building	(2) 15 HP pumps (appx. 62 gpm each existing); controlled by level at Dinsmore & suction/discharge piping	2006	50	42	Excellent	as needed		medium	none		3 \$	13,774	
Booster Pump Station to Dinsmore	perimeter fencing	2006	20	12	Excellent	quarterly		critical	yes; 1 duty/1 standby		1 \$	74,612	
Security Fencing	combination for Douglas and Dinsmore	2006	60	52	Excellent	as needed		low	none		4 \$	13,774	
Telemetry	Magmeter for 0.5 MG tank	2001	20	7	Good	as needed		critical	none		1 \$	5,981	
Flowmeter	EMCO for (2) booster pumps	2006	20	12	Excellent	1x/year		low	none		4 \$	4,591	
Flowmeter	for recirculation pump station	2006	20	12	Excellent	1x/year		low	none		5 \$	4,591	
Dinsmore Tank													
0.1 MG Bolted Steel Tank	fed by booster pump station at Douglas;	2006	75	67	New	1x/5 years; serviced in		critical	none		1 \$	200,877	
Flowmeter	not hooked up; no power	2006	20	12	New	1x/year		low	none		5 \$	4,591	
Solar Powered Telemetry	NOT INSTALLED YET	2015	15	16	Good	as needed		critical	none		1 \$	28,697	
Painter Tank													
0.25 MG Welded Steel Tank	level transducer for indication only; floats with 0.5 MG Douglas Tank	1956	60	2	Fair	1x/5 years; serviced in		critical	none		1 \$	300,000	
Solar Powered Telemetry	works when sunny (1 solar panel; converter; RTU)	2005	15	6	Good	as needed		critical	none		1 \$	28,697	
TOTAL											\$	1,369,314	

Table B.3: Rio Dell Water Distribution System CIP Inventory - 2014

Water Distribution System										
Asset - Collection System	Expected Useful Life	Condition	Service History	Adjusted Life	Age	Remaining Useful Life	Importance	Redundancy	Priority (1=highest) (5=lowest)	TOTAL 2014 COST
2" or smaller water line										
Lineal Feet (LF) - 22533	60	Poor to Fair	LF needing replacement - 22,370'	50	1950	0	High	none	1	\$ 1,677,750
4" water line										
Lineal Feet (LF) - 10313	60	Poor to Fair	LF needing replacement - 10,304'	50	1950	0	High	none	1	\$ 772,800
6" water line										
Lineal Feet (LF) - 34947	60	Poor to Fair	LF needing replacement - 34,947'	50	1975	11	High	none	2	\$ 2,795,760
Lineal Feet (LF) - 1389	100	New	New line installed in 2006	50	2006	42	High			\$ 111,120
8" water line										
Lineal Feet (LF) - 9330	60	Poor to Fair	LF needing replacement - 9,330'	50	1980	16	High	none	3	\$ 793,050
Lineal Feet (LF) - 5718	100	New		50	2006	42	High			\$ 486,030
10" water line										
Lineal Feet (LF) - 20790	100	New	LF needing replacement - 0'	50	2006	42	High	none	4	\$ 1,871,100
Fire Hydrant Assemblies										
Quantity - 23	40	Fair	Units needing replacement - 23	30	1980	0	High	none	3	\$ 103,500
Quantity - 28	100	New	28 replaced in 2006	30	2006	22	High			\$ 126,000
Gate Valves										
Quantity - 64	40	Fair	Units needing replacement - 64	30	1980	0	High	none	3	\$ 96,000
Quantity - 157	100	New	93 replaced in 2006	30	2006	22	High			\$ 235,500
Water Meters										
Quantity - 1210	20	Poor to Fair	Units needing replacement - 1210	20	2006	11	High	none	1	\$ 320,000
TOTAL										\$ 9,388,610

Table B.4: Capital Improvement Plan Budget for Useful Life Estimates, with 5-Year CIP Items Removed

COMPONENT	TOTAL REPLACEMENT COST (\$)	ADJUSTED REMAINING USEFUL LIFE	YEAR TO BEGIN SAVING	YEAR OF REPLACEMENT	COMPOUND AMOUNT (\$)	ANNUAL SINKING FUND (\$)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TREATMENT																	
Raw Water Intake																	
Infiltration Gallery Intake Piping	\$275,000	52	2026	2067	\$ 516,064	\$7,740	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Raw Water Intake Pumps	\$94,023	7	2017	2022	\$ 101,339	\$19,427	\$ -	\$ -	\$ 19,427	\$ 19,427	\$ 19,427	\$ 19,427	\$ 19,427	\$ 19,427	\$ 19,427	\$ -	\$ 7,740
Well	\$90,000	42	2025	2057	\$ 145,387	\$3,221	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Raw Water Forcemain	\$202,590	42	2025	2057	\$ 327,266	\$7,251	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,221
Backwash System	\$18,000	42	2025	2057	\$ 29,077	\$644	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,251
Auma Actuators	\$6,500	7	2017	2022	\$ 7,006	\$1,343	\$ -	\$ -	\$ 1,343	\$ 1,343	\$ 1,343	\$ 1,343	\$ 1,343	\$ 1,343	\$ -	\$ -	\$ 644
Coagulation/Flocculation																	
Temperature/pH Meter	\$230	7	2017	2022	\$ 248	\$48	\$ -	\$ -	\$ 48	\$ 48	\$ 48	\$ 48	\$ 48	\$ 48	\$ -	\$ -	\$ -
Raw Water Turbidity Meter	\$4,732	2	2017	2020	\$ 4,950	\$1,615	\$ -	\$ -	\$ 1,615	\$ 1,615	\$ 1,615	\$ 1,615	\$ 1,615	\$ 1,615	\$ -	\$ -	\$ -
Streaming Current Monitor	\$10,745	7	2017	2022	\$ 11,581	\$2,220	\$ -	\$ -	\$ 2,220	\$ 2,220	\$ 2,220	\$ 2,220	\$ 2,220	\$ 2,220	\$ -	\$ -	\$ -
Chlorine Solution Tank	\$2,000	42	2025	2057	\$ 3,231	\$72	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 72
Sodium Hypochlorite Injection	\$1,055	7	2017	2022	\$ 1,137	\$218	\$ -	\$ -	\$ 218	\$ 218	\$ 218	\$ 218	\$ 218	\$ 218	\$ -	\$ -	\$ -
Chlorine Analyzer	\$2,979	7	2017	2022	\$ 3,211	\$616	\$ -	\$ -	\$ 616	\$ 616	\$ 616	\$ 616	\$ 616	\$ 616	\$ -	\$ -	\$ -
Coagulant Solution Tank	\$1,750	47	2025	2062	\$ 3,047	\$55	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 55
ProPac 932 Polymer Injection	\$1,750	10	2017	2025	\$ 1,973	\$229	\$ -	\$ -	\$ 229	\$ 229	\$ 229	\$ 229	\$ 229	\$ 229	\$ -	\$ -	\$ 55
ProPac 9700 Polymer Injection	\$2,500	7	2017	2022	\$ 2,695	\$517	\$ -	\$ -	\$ 517	\$ 517	\$ 517	\$ 517	\$ 517	\$ 517	\$ -	\$ -	\$ 229
Flash Mixer	\$15,000	12	2025	2027	\$ 15,456	\$7,647	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,647
Flocculator Vertical Paddle Wheel Motors	\$450	7	2017	2022	\$ 485	\$93	\$ -	\$ -	\$ 93	\$ 93	\$ 93	\$ 93	\$ 93	\$ 93	\$ -	\$ -	\$ -
Flocculator Pneumatic Sludge Wasting Valve	\$1,500	2	2017	2020	\$ 1,569	\$512	\$ -	\$ -	\$ 512	\$ 512	\$ 512	\$ 512	\$ 512	\$ 512	\$ -	\$ -	\$ -
Clarified Water Tanks	\$7,000	47	2025	2062	\$ 12,188	\$220	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 220
Filtration																	
Transfer Pumps	\$8,000	7	2017	2022	\$ 8,623	\$1,653	\$ -	\$ -	\$ 1,653	\$ 1,653	\$ 1,653	\$ 1,653	\$ 1,653	\$ 1,653	\$ -	\$ -	\$ -
Clarified Water Turbidity Meter	\$2,600	2	2017	2020	\$ 2,720	\$888	\$ -	\$ -	\$ 888	\$ 888	\$ 888	\$ 888	\$ 888	\$ 888	\$ -	\$ -	\$ -
Clarified Water Flowmeters	\$2,800	7	2017	2022	\$ 3,018	\$579	\$ -	\$ -	\$ 579	\$ 579	\$ 579	\$ 579	\$ 579	\$ 579	\$ -	\$ -	\$ -
Clarified Water Flowmeters	\$2,800	10	2017	2025	\$ 3,157	\$366	\$ -	\$ -	\$ 366	\$ 366	\$ 366	\$ 366	\$ 366	\$ 366	\$ -	\$ -	\$ -
Charifier/Polishing Filters	\$700,000	37	2025	2052	\$ 1,049,147	\$29,191	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 29,191
Filter Media	\$24,000	2	2017	2020	\$ 25,104	\$8,193	\$ -	\$ -	\$ 8,193	\$ 8,193	\$ 8,193	\$ 8,193	\$ 8,193	\$ 8,193	\$ -	\$ -	\$ -
Chlorine Injection	\$1,523	7	2017	2022	\$ 1,642	\$315	\$ -	\$ -	\$ 315	\$ 315	\$ 315	\$ 315	\$ 315	\$ 315	\$ -	\$ -	\$ -
Chlorine Analyzer	\$2,979	7	2017	2022	\$ 3,211	\$616	\$ -	\$ -	\$ 616	\$ 616	\$ 616	\$ 616	\$ 616	\$ 616	\$ -	\$ -	\$ -
Clear Well	\$25,000	92	2025	2107	\$ 85,441	\$395	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 395
Finish Water Pump #1	\$50,000	15	2017	2030	\$ 60,755	\$4,108	\$ -	\$ -	\$ 4,108	\$ 4,108	\$ 4,108	\$ 4,108	\$ 4,108	\$ 4,108	\$ -	\$ -	\$ -
Finish Water Pumps #2	\$50,000	7	2017	2022	\$ 53,891	\$10,331	\$ -	\$ -	\$ 10,331	\$ 10,331	\$ 10,331	\$ 10,331	\$ 10,331	\$ 10,331	\$ -	\$ -	\$ -
Effluent Flow Meters	\$6,500	7	2017	2022	\$ 7,006	\$1,343	\$ -	\$ -	\$ 1,343	\$ 1,343	\$ 1,343	\$ 1,343	\$ 1,343	\$ 1,343	\$ -	\$ -	\$ -
Bray Valves	\$8,384	2	2017	2020	\$ 8,770	\$2,862	\$ -	\$ -	\$ 2,862	\$ 2,862	\$ 2,862	\$ 2,862	\$ 2,862	\$ 2,862	\$ -	\$ -	\$ -
Level Controllers	\$1,200	7	2017	2022	\$ 1,293	\$248	\$ -	\$ -	\$ 248	\$ 248	\$ 248	\$ 248	\$ 248	\$ 248	\$ -	\$ -	\$ -
Backwash System																	
Backwash Pumps	\$5,000	10	2017	2025	\$ 5,637	\$654	\$ -	\$ -	\$ 654	\$ 654	\$ 654	\$ 654	\$ 654	\$ 654	\$ -	\$ -	\$ 654
Backwash Tank	\$15,000	47	2025	2062	\$ 26,117	\$472	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 472
Pneumatic Valves	\$1,000	10	2017	2025	\$ 1,127	\$131	\$ -	\$ -	\$ 131	\$ 131	\$ 131	\$ 131	\$ 131	\$ 131	\$ -	\$ -	\$ 131
Air Scour Blowers	\$15,000	2	2017	2020	\$ 15,690	\$5,121	\$ -	\$ -	\$ 5,121	\$ 5,121	\$ 5,121	\$ 5,121	\$ 5,121	\$ 5,121	\$ -	\$ -	\$ -
SCADA System																	
Red Lion HMI/PLC	\$20,000	20	2025	2035	\$ 23,234	\$2,110	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,110
Filter Controllers	\$2,568	12	2017	2027	\$ 3,006	\$273	\$ -	\$ -	\$ 273	\$ 273	\$ 273	\$ 273	\$ 273	\$ 273	\$ -	\$ -	\$ 273
Aqua Sierra SCADA	\$10,140	1	2017	2020	\$ 10,606	\$3,462	\$ -	\$ -	\$ 3,462	\$ 3,462	\$ 3,462	\$ 3,462	\$ 3,462	\$ 3,462	\$ -	\$ -	\$ 273
Miscellaneous																	
Fencing & security gates	\$30,000	32	2017	2047	\$ 47,031	\$1,138	\$ -	\$ -	\$ 1,138	\$ 1,138	\$ 1,138	\$ 1,138	\$ 1,138	\$ 1,138	\$ -	\$ -	\$ 1,138
Yard lighting (overhead)	\$10,000	39	2017	2054	\$ 17,411	\$315	\$ -	\$ -	\$ 315	\$ 315	\$ 315	\$ 315	\$ 315	\$ 315	\$ -	\$ -	\$ 315
Asphalt pavement	\$75,000	39	2025	2054	\$ 115,829	\$2,932	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,932
Grating, stairs, railings	\$80,000	42	2025	2057	\$ 129,233	\$2,863	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,863

STORAGE													
Douglas Storage Tanks													
.25 MG Redwood Tank	\$300,000	4	2017	2020	\$ 313,796	\$102,412	\$ -	\$ -	\$ 102,412	\$ 102,412	\$ 102,412	\$ -	\$ -
0.5 MG Boiled Steel Tank	\$286,967	67	2025	2082	\$ 674,273	\$6,199	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,199
Recirculation Pump Station	\$97,569	22	2017	2037	\$ 131,670	\$5,355	\$ -	\$ -	\$ 5,355	\$ 5,355	\$ 5,355	\$ -	\$ 5,355
Wood Building	\$13,774	42	2025	2057	\$ 22,251	\$493	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 493
Security Fencing	\$13,774	52	2025	2067	\$ 25,849	\$388	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 388
Telemetry	\$5,981	7	2017	2022	\$ 6,446	\$1,236	\$ -	\$ -	\$ 1,236	\$ 1,236	\$ 1,236	\$ -	\$ -
Flowmeter	\$4,591	12	2017	2027	\$ 5,334	\$484	\$ -	\$ -	\$ 484	\$ 484	\$ 484	\$ 484	\$ 484
Flowmeter	\$4,591	12	2017	2027	\$ 5,334	\$484	\$ -	\$ -	\$ 484	\$ 484	\$ 484	\$ 484	\$ 484
Flowmeter	\$4,591	12	2017	2027	\$ 5,334	\$484	\$ -	\$ -	\$ 484	\$ 484	\$ 484	\$ 484	\$ 484
Dismore Tank													
0.1 MG Boiled Steel Tank	\$200,877	67	2025	2082	\$ 471,991	\$4,339	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,339
Flowmeter	\$4,591	12	2017	2027	\$ 5,334	\$484	\$ -	\$ -	\$ 484	\$ 484	\$ 484	\$ 484	\$ 484
Painter Tank													
Solar Powered Telemetry	\$28,697	6	2017	2021	\$ 30,470	\$7,379	\$ -	\$ -	\$ 7,379	\$ 7,379	\$ 7,379	\$ -	\$ -
DISTRIBUTION													
Piping													
2" or smaller water line (Old) (75%)	\$1,258,313	0	2017	2020	\$ 1,316,179	\$429,555	\$ -	\$ -	\$ 429,555	\$ 429,555	\$ 429,555	\$ -	\$ -
4" water line (Old) (75%)	\$579,600	0	2017	2020	\$ 606,254	\$197,860	\$ -	\$ -	\$ 197,860	\$ 197,860	\$ 197,860	\$ -	\$ -
6" water line (Old)	\$2,795,760	11	2017	2026	\$ 3,199,480	\$326,405	\$ -	\$ -	\$ 326,405	\$ 326,405	\$ 326,405	\$ -	\$ -
6" water line (New)	\$111,120	42	2025	2057	\$ 179,504	\$3,977	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,977
8" water line (Old)	\$793,050	16	2017	2031	\$ 978,192	\$60,747	\$ -	\$ -	\$ 60,747	\$ 60,747	\$ 60,747	\$ -	\$ -
8" water line (New)	\$486,030	42	2025	2057	\$ 765,137	\$17,396	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,396
10" water line (New)	\$1,871,100	42	2025	2057	\$ 3,022,592	\$66,972	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 66,972
Other													
Fire Hydrant Assemblies (Fair)	\$103,500	0	2017	2020	\$ 108,260	\$35,332	\$ -	\$ -	\$ 35,332	\$ 35,332	\$ 35,332	\$ -	\$ -
Fire Hydrant Assemblies (New)	\$126,000	22	2025	2037	\$ 150,826	\$11,170	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,170
Gate Valves (Fair)	\$96,000	0	2017	2020	\$ 100,415	\$32,772	\$ -	\$ -	\$ 32,772	\$ 32,772	\$ 32,772	\$ -	\$ -
Gate Valves (New)	\$235,500	22	2025	2037	\$ 281,901	\$20,877	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,877
INFLATION													
	1.51%					\$1,150	\$ -	\$ -	\$ 92	\$ 92	\$ 92	\$ -	\$ 29
LAIF INTEREST RATE													
	2.12%				percent of collection	\$1	\$ -	\$ -	\$ 46	\$ 46	\$ 46	\$ -	\$ 15
TOTAL													
					connections	\$1,150	\$ -	\$ -	\$ 92	\$ 92	\$ 92	\$ -	\$ 29
					percent of collection	\$1	\$ -	\$ -	\$ 46	\$ 46	\$ 46	\$ -	\$ 15