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DRAFT
Evaluation of a
Water Resource In-Lieu
Fee

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Prepared for
City of San Buenaventura
501 Poli Street, Room 120
Ventura, CA 93002

K/J Project No. 1289032*00

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Section 1: Introduction

This evaluation summarizes the economic basis and development of a water resource in-lieu fee. This recommended fee would apply to new or intensified development that requires an increase in water service but does not transfer sufficient water rights to serve the proposed development.

1.1 Background and Objectives

The City of San Buenaventura (City) owns and operates a water system that serves approximately 32,000 service connections, within and outside the City boundaries. Water is supplied through 3 main sources: local groundwater from the Mound, Santa Paula, and Oxnard Plain basins, treated water purchased from Casitas Municipal Water District (Casitas) and water diverted from the Ventura River. Water from Casitas can only be delivered to the City's customers that are within the boundaries of Casitas. Water service is provided to residential, commercial, industrial and irrigation customers, including fire protection users. Recycled water from the Ventura Water Reclamation Facility is also delivered to recycled water customers located along the existing distribution system alignment.

The City water system is a complex system of 16 pressure zones, 13 wells, 21 booster stations, approximately 380 miles of pipelines ranging from 4-inches to 36-inches in diameter, and a total storage capacity of approximately 52 million gallons (mg) in 32 tanks and reservoirs. The system delivers water from sea level to a maximum elevation of over 1,000 feet. The City operates three treatment facilities, including one membrane filtration treatment plant for surface water sources on the west side of the City, and two iron/manganese removal treatment plants for groundwater sources on the east side¹. The City also maintains and operates the Ventura Water Reclamation Facility.

The City has previously prepared various water planning documents that address water demands and supplies. These documents include the 2005 General Plan documents, 2010 Urban Water Management Plan, and 2011 Water Master Plan. Because these documents were prepared for specific and different purposes, the water demand and supply projections differ. Recently, the City prepared a Draft May 2013 Comprehensive Water Resources Report to compare the water demand and supply projections in the previous reports and compare the City's water demand projections with its available supplies. The Draft Report was approved by the City Council on June 10, 2013. Relevant conclusions of this report are summarized and form the basis for this evaluation.

To assure that new development does not adversely affect the water supply or water supply reliability of the City's existing customers, the City desires to implement a water rights dedication ordinance and water resource in-lieu fee. The objective of these actions would be to assure that adequate water supplies are available for proposed new or intensified developments without adverse impacts to the City's existing customers or approved new developments. Developers could dedicate adequate water supplies to support a proposed new or intensified development or they could pay an in-lieu fee so that the City could develop the necessary water supplies. Accordingly, this study addresses the technical basis for the water resource in-lieu fee.

¹ City of San Buenaventura Water Master Plan, 2011.

1.2 Scope of Services

To develop the technical basis for the in-lieu fee, the following scope of services was developed:

1. Meet with City staff to establish appropriate water resource zones.
2. Identify potential additional water supplies for each zone.
3. Evaluate the probable cost of acquiring each of the identified potential water supplies.
4. Recommend a water resource in-lieu fee for each water resource zone.
5. Work with City staff and legal counsel to develop a water dedication ordinance.
6. Provide written comments to the draft ordinance.
7. Attend Community Workshop.

Section 2: Summary of Current Water Demands and Supplies

Based on a review of the previous water demand projections and a detailed evaluation of historical water demands in 2005, the Final 2013 Comprehensive Water Resources Report estimates that the CY 2012 water demand including a 6.5 percent water loss factor, per the City's 2010 Urban Water Management Plan, is 18,004 acre-feet per year (AFY). The recommended baseline water demand for existing conditions is 17,601 AFY and was based on the average of the City's most recent 5-years of demands, including the 6.5 percent water loss factor. Based on the estimated water demands of approved new developments, the Final 2013 Comprehensive Water Resources Report projects the near-term water demand to grow to 18,643 AFY which is expected to occur by 2019.

The Final 2013 Comprehensive Water Resources Report summarizes the City's current water supplies as 5,000 AFY from Casitas, 4,200 AFY from the Ventura River (Foster Park), 4,000 AFY from the Mound Groundwater Basin, 4,100 AFY from the Oxnard Plain Groundwater Basin, 1,600 AFY from the Santa Paula Groundwater Basin, and 700 AFY of recycled water. Accordingly, the City's current water supply portfolio totals 19,600 AFY.

Section 3: Potential Sources of Additional Water Supply Development

The Final 2013 Comprehensive Water Resources Report (2013 Report) also identifies future and potential additional future water supplies. Future water supplies include increased Casitas deliveries to approved developments within the Casitas service area, restoration of the Foster Park wellfield production capacity by 2,500 AFY, and increased recycled water deliveries by 700 AFY. These future water supplies would increase the future available supplies. Potential additional future water supplies identified in the 2013 Report include deliveries of imported water supplies from the State Water Project, Saticoy County Yard Well, recycled water from the Ventura Water Reclamation Facility (VWRF) and Ojai Valley Sanitary District (OVSD), ocean desalination, water conservation, and water rights ordinance.

Of the potential sources identified for new development, most of the potential additional future water supplies have uncertainties or complexities that limit their utilization as the basis for development of a water resource in-lieu fee. Currently, State Water is limited by the ability to deliver the water to the City. Although State Water can be wheeled through the Metropolitan Water District of Southern California and Calleguas Municipal Water District, it would be costly and the necessary agreements have not been negotiated. Concerns regarding the Saticoy County Yard Well have been raised by the Fox Canyon Groundwater Management Agency and United Water Conservation District and a Limitation and Tolling Agreement was in effect. It was determined that the 2004 County of Ventura Saticoy Operations Yard EIR was not sufficient for the anticipated operations of the Saticoy County Yard Well and, therefore, additional environmental review is warranted for operation of the well. Recycled water may be available from the OVSD; however, development of this supply is expected to be complex, difficult and costly. Although ocean desalination was preferred by the City's voters in 1993 over State Water deliveries, this potential additional future water supply has not been sufficiently developed to form the basis for the water resource in-lieu fee. Water conservation measures may help sustain existing water use and delay the need for new water supplies and the water rights ordinance includes the concept of a water resource in-lieu fee. For these reasons, the identified potential additional future water supplies are not included as the basis for the water resource in-lieu fee. However, as these potential additional future water supplies become more fully developed, they may become the basis for subsequent fees. The estimated amount of available potential future recycled water from the VWRF beyond the 700 AFY included as a future water supply was not addressed in the 2013 Report since the City was still determining the best uses of the treated effluent from the VWRF. However, a June 2013 Draft Recycled Water Feasibility Study identifies a recommended project. Accordingly, the water resource in-lieu fee is based on additional Casitas deliveries, restoration of the Foster Park wellfield production capacity, and increased recycled water deliveries from the VWRF.

Depending on local hydrology, other water sources and relative economics, the City currently uses approximately 5,000 acre-feet per year (AFY) of Casitas water for its current customers within the Casitas service area. Up to 8,000 AFY of Casitas water are available to the City subject to certain water supply conditions. In FY 2011-2012, Casitas delivered a total of 14,655 AF of water to its customers. The current cost of Casitas water is \$426 per acre-foot (January 2012 dollars) and does not include the cost of infrastructure to deliver Casitas water to City proposed developments. These infrastructure costs would be borne by the developer or

paid through other City fees. As of mid-2012, the value of Casitas assets utilized to deliver water to the City (i.e. transmission, treatment plant and fish ladder) and its other customers was \$ 70,578,260.

Production wells at Foster Park were destroyed in previous storm events and the Ventura River surface water diversion is not functional at this time. The current capacity from the Foster Park/Ventura River facilities is estimated to be 4,200 AFY. The City is planning new wells to increase the production capacity to 6,700 AFY. The estimated capital cost of these facilities is \$ 28,000,000 (2013 dollars).

The City currently delivers approximately 700 AFY of recycled water from the VWRP for urban landscape irrigation. Based on the Draft June Update of the 2013 Estuary Special Studies Phase 2 Recycled Water Study, the recommended VWRP recycled water project is the Mound Basin Indirect Potable Reuse (IPR) or Direct Potable Reuse (DPR). Therefore, the Mound Basin DPR is utilized as the basis for the evaluation of the water resource in-lieu fee. The estimated capital cost of this alternative is \$88,000,000 (2013) and it would have an estimated annual delivery capacity of approximately 4000 AFY.

Section 4: Recommended Water Resource Zones

The City appears to have limited opportunities for developing additional water resources for new development. Of the sources identified, water from Casitas is limited to City service within the boundaries of Casitas, restoration of the Foster Park wellfield production capacity can be utilized throughout the City, and recycled water can be applied directly or indirectly to benefit new development throughout the City. Accordingly, it is recommended that the City establish 2 zones to levy the water resource in-lieu fee. One zone would encompass the area that can be served by Casitas (Zone 1) and the other zone would encompass the area outside Casitas (Zone 2).

Section 5: Economic Basis for Recommended Fees

The amount of the recommended water resource in-lieu fees is based on the required capital cost and interest to develop the additional water supplies to serve new development. Because the available additional water supplies differ for the two water resource zones, the recommended fees for each zone would also differ. As additional water supply opportunities are identified or the development costs of the identified supplies are updated, it is recommended that this analysis be updated to reflect any additional information.

In Zone 1, the additional water supplies available for new development are Casitas water, Foster Park groundwater, and Mound Basin DPR water. To estimate the unit capital cost of Casitas water, the value of Casitas' assets attributable to relevant water deliveries (i.e. water treatment plant, transmission and distribution, and fish ladder) were derived from Casitas' Comprehensive Annual Financial Report for Fiscal Years Ended June 30, 2012 and 2011. The asset value for mid-2012 is then adjusted by the ENR Index² to 2013. Interest attributable to the 1991 loan for \$5,203,965 from the Department of Water Resources (DWR) to construct the water treatment plant is added to the asset value and the total is divided by Casitas' water deliveries. To estimate the unit capital cost of Foster Park wellfield production capacity, the budgeted capital cost derived from the City's proposed Capital Improvement Plan for 2013-2019 and divided by the increased production capacity of the project. To estimate the unit capital cost of recycled water, the estimated capital cost of Mound Basin DPR water development is divided by the estimated delivery increase. The results of these analyses are weight-averaged based on the quantity of additional water that can be developed.

In Zone 2, only Foster Park wellfield capacity and Mound Basin DPR water is available for new development. Accordingly, the recommended fee is developed as described for Foster Park wellfield production capacity and recycled water in Zone 1.

The calculation of the recommended water resource in-lieu fees are presented in Appendices A and B.

² The ENR Index is a commonly used index of construction costs for each region of the United States and is used to adjust costs of prior periods to current dollars. The index for the Los Angeles region is utilized in this evaluation.

Section 6: Recommended Water Resource In-Lieu Fees

Based on the calculations presented in Appendices A and B, the recommended water resource in-lieu fees for 2013 are \$11,886 per AFY of additional demand for Zone 1 and \$17,846 per AFY of additional demand for Zone 2. As additional opportunities or cost information is developed, the recommended fees should be updated and revised accordingly.

Section 7: Potential Implementation Issues

To implement the recommended fees, the City must have an accurate assessment of the potential water demands of proposed new development. Although the water demand factors of new development have been dropping due to the incorporation of water conservation measures, the City should be conservative in its application of water demand factors. Accordingly, it is recommended that the City utilize the City's current local water use demand factors approved by Council on June 10, 2013, as presented in the Final 2013 Comprehensive Water Resources Report, to the recommended water resource in-lieu fees for appropriateness and conservatism.

In addition, because the recommended fees have not been applied in the past, it is likely that imminent new development has not incorporated the recommended fees into its financing. Accordingly, it is recommended that the City consider an effective date that allows new development to incorporate the financial impact of the new fees.

The adoption of the recommended water resource in-lieu fees should be exempt from the California Environmental Quality Act (CEQA) under Section 15273 of the CEQA Guidelines. A draft Notice of Exemption has been submitted to the City.

Appendix A: Calculation of the Water Resource In-Lieu Fee for Zone 1

Assumptions:

1. The mid-2012 asset value of water facilities used to deliver Casitas water to the City is \$70,578,260.
2. Total interest on Casitas 1991 DWR loan is \$9,152,040.
3. Casitas total water deliveries are 14,655 AFY.
4. The Casitas water available for new development is 3,000 AFY.
5. Capital cost of Foster Park Wellfield is \$28,000,000 (2013).
6. Increased production capacity of the Foster Park Wellfield is 2,500 AFY of which 1250 AFY is allocated to new development in Zone 1.
7. Capital cost of Mound Basin DPR water development is \$88,000,000 (2013).
8. The Mound Basin DPR water delivery capacity is 4,000 AFY of which 2000 AFY is allocated to new development in Zone 1.
9. ENR-LA Index is 10295.55 for July 2012 and 10276.68 for January 2013.

Calculation:

Unit Asset Value and Interest of Casitas Facilities (July 2012) = \$70,578,260
+\$9,152,040/14,655 AFY

= \$5440/AFY

Unit Asset Value and Interest of Casitas Facilities (January 2013) = \$5440/AFY *
10276.68/10295.55

= \$5430/AFY

Unit Capital Cost of the Foster Park Wellfield (2013) = \$28,000,000/2,500 AFY

= \$11,200/AFY

$$\begin{aligned}\text{Unit Capital Cost of Mound Basin DPR Water (2013)} &= \$88,000,000/4,000 \text{ AFY} \\ &= \$22,000/\text{AFY}\end{aligned}$$

$$\begin{aligned}\text{Weighted Average} &= \frac{\$5430/\text{AFY} \cdot 3,000 \text{ AFY} + \$11,200/\text{AFY} \cdot 1,250 \text{ AFY} + \$22,000/\text{AFY} \cdot 2,000 \text{ AFY}}{3,000 \text{ AFY} + 1,250 \text{ AFY} + 2,000 \text{ AFY}} \\ &= \$11,886/\text{AFY}\end{aligned}$$

Appendix B: Calculation of the Water Resource In-Lieu Fee for Zone 2

Assumptions:

1. Capital cost of Foster Park Wellfield is \$28,000,000 (2013).
2. Increased production capacity of the Foster Park Wellfield is 2,500 AFY of which 1250 AFY is allocated to new development in Zone 2.
3. Capital cost of Mound Basin DPR water development is \$88,000,000 (2013).
4. The Mound Basin DPR water delivery capacity is 4,000 AFY of which 2000 AFY is allocated to new development in Zone 2.
5. ENR-LA Index is 10295.55 for July 2012 and 10276.68 for January 2013.

Calculation:

$$\begin{aligned}\text{Unit Capital Cost of the Foster Park Wellfield (2013)} &= \$28,000,000/2,500 \text{ AFY} \\ &= \$11,200/\text{AFY}\end{aligned}$$

$$\begin{aligned}\text{Unit Capital Cost of Mound Basin DPR Water (2013)} &= \$88,000,000/4,000 \text{ AFY} \\ &= \$22,000/\text{AFY}\end{aligned}$$

$$\begin{aligned}\text{Weighted Average} &= \frac{\$11,200/\text{AFY} * 1,250 \text{ AFY} + \$22,000/\text{AFY} * 2,000 \text{ AFY}}{1,250 \text{ AFY} + 2,000 \text{ AFY}} \\ &= \$ 17,846/\text{AFY}\end{aligned}$$