

**2020-21 and 2021-22 BUDGET DEVELOPMENT – ADDITIONAL DETAIL
(In Millions)**

	<u>Proposed 2020-21</u>	<u>Proposed 2021-22</u>
1) SALARIES, WAGES & BENEFITS	\$102.1	\$107.3
1a) Salaries & Wages	\$74.6	\$78.3

Salaries for 640 full-time equivalent (FTE) positions have been approved in the current budget and is unchanged in the proposed budgets. The increase is attributable to step advancements and planned salary increases per bargaining agreements. The Vacancy Factor was set at 3 percent based on trend information.

1b) Leave Payoffs	\$2.4	\$2.5
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Leave Payoffs for retirements are anticipated to be in line with recent history reflecting retirements of long-term employees.

1c) Overtime	\$2.3	\$2.4
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Overtime is proposed to remain relatively flat in FY 2020-2021 and FY 2021-22. Of the total proposed, \$2.2 million is budgeted in Operations and Maintenance primarily for required overtime as the plants are in operation 24/7 (vacation, sick, shift overlap), emergencies, unscheduled maintenance, backlog, and off-shift construction support. The remaining is budgeted in other divisions and has remained essentially the same.

1d) Orange County Emp. Ret. System	\$11.6	\$12.2
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District employees are members of the Orange County Employees' Retirement System (OCERS). The employer's required contribution rates slightly increased this year after remaining relatively flat following the payoff of the District's unfunded actuarial accrued liability beginning in the fall of 2015 and again in 2019.

1e) Group Insurance	\$9.7	\$10.3
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Includes Medical, Dental, Vision, Life Insurance, Medicare, and Disability. The proposed group insurance budget approximates \$16,000 per employee (642 proposed full-time equivalent positions).

1f) Benefits, Other	\$1.5	\$1.6
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Includes Workers' Compensation, Tuition Reimbursement, Development Pay, and Uniform Rental. Workers' Compensation (\$0.6 million in FY 2020-21 and \$0.7 million in FY 2021-22) is used to maintain the level of accumulated reserves within the Workers' Compensation self-insurance funds. The Development Pay Program (\$540,000) is intended to promote employee efforts that increase job knowledge, skills, and abilities.

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2) REPAIRS AND MAINTENANCE	\$28.4	\$24.2
2a) Materials & Services	\$23.9	\$19.6

The material and services budget supports the maintenance of the collection system and the treatment plants. Materials and services for the collections system include street overlays/manhole raising, manhole cover purchases, surveying services, and easement improvements and other materials and services. Collections has a major repair project in each of the budgeted years: FY 2020-21 Bushard Diversion Structure Repair (\$1.1M) and FY 2021-22 Sunflower Trunkline Liner Repairs (\$2.3M). Plant maintenance materials and services include: centrifuge overhaul (\$2.0M), digester cleaning (\$800K), emergency generator maintenance (\$100K), clarifier rehabilitation (\$1.0M), secondary clarifiers repairs (\$1.5M) and inlet gate replacement (\$662K). Lastly, materials and services to maintain the District fleet (\$486K).

The budget for basic scheduled, predictive, and preventive maintenance and emergency maintenance are included in these budgets which are proposed based on historical experience and cost trends.

2b) Service Agreements	\$4.5	\$4.6
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Service contracts are mostly either computer-related or O&M maintenance-related. Major contracts for Information Technology (\$2.7M) include IBM Software Maintenance, Microsoft Enterprise License Agreements, Cisco Smart Net, Maximo support, disaster recovery hardware and software support, Oracle support, and various smaller service agreements. Contractor Support Services in the Operations and Maintenance Department manages all service contracts for the maintenance of the collection system and treatment plants (\$1.7M). These service agreements include crane certification, engine monitoring systems, door and gate maintenance, scale certification, tree trimming, pest control, fire extinguisher and fire sprinkler certification, Uninterruptible Power Supply electrical maintenance, scaffolding, and various other plant maintenance and service maintenance agreements covering various equipment located throughout the District. Additional service maintenance agreements covering various equipment items are budgeted throughout the District.

3) CONTRACTUAL SERVICES	\$19.2	\$19.4
3a) Solids Removal	\$12.4	\$12.4

Biosolids – For FY 2020-210 and FY 2021-22, biosolids production is estimated to be 206,000 wet tons per year. The cost is projected to remain steady during the biennial budget at \$12.4 million. The centrifuges are running at both plants and producing a drier

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cake than the belt presses as planned, with %TS increasing from 19.5% to 27%. The drier cake produces a lower volume to be hauled away and hauling costs are remaining steady.

3b) Other Residual Solids and Waste	\$0.9	\$0.9
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The other residual solids and waste category includes disposal costs for grit and screening waste, digester cleaning waste, and hazardous materials. The Grit and Screening budget includes supplying bins to collect then haul and dispose of grit, screenings, and drying bed material to a landfill. The grit is generated from the grit chambers, and the screenings is the material collected off the bar screens. Drying bed material is typically made up of the material cleaned out of pipes in the collection system by District crews and other city crews in the District's service area. The budget for disposal of grit, screenings, and other waste is \$900,000 in FY 2020-21 and FY 2021-22.

3c) Groundskeeping/Janitorial/Security	\$2.3	\$2.3
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The Security Services budget is \$1.6 million based on the level of security services provided to the Sanitation District. The proposed budgets for Groundskeeping and Janitorial Services have remained essentially the same.

3d) County Service Fee	\$0.5	\$0.5
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The County Service Fee is the fee charged by the County of Orange for the inclusion of the District's sanitation fees on the County of Orange Property Tax Bill and for the collection of these fees by the County on behalf of the District.

3e) Oxygen Plant Operations	\$0.3	\$0.3
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The District Oxygen Plant has been decommissioned and currently, the activated sludge plant operates solely with purchased oxygen.

3f) Temporary Services	\$0.4	\$0.4
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Temporary Services are proposed to decrease from \$800,000 in FY 2020-21 and FY 2021-22 from the previously adopted budget year due to reduced need and open positions being filled.

3g) Outside Lab Services	\$0.3	\$0.3
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The District contracts out certain laboratory services that are not cost-efficient to perform in-house. Examples include air quality analyses, oil analyses for transformers and internal combustion engines, contaminants of potential concern, and hi-resolution mass

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spectroscopy. As approximately half of OCSD biosolids are reused in Arizona; contracted testing for those biosolids must meet the State of Arizona requirement for analyses to be performed in an Arizona certified laboratory.

3h) Contracted Services, Other	\$2.1	\$2.3
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Approximately 70% of contracted services are in support of operating and maintaining the collection system and the treatment plants. Treatment plant services include Civil Assets Management Project (CAMP)-related support services for industrial cleaning (\$900K), Ocean Outfall Inspection and Cleaning (\$250K) and coatings (\$380K).

4) OPERATING MATERIALS & SUPPLIES	\$21.5	\$21.3
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4a) Chemical Coagulants	\$10.6	\$10.6
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Anionic Polymer – Anionic polymer is added to the primary clarifiers in combination with ferric chloride to enhance primary clarifier performance. Proposed costs will approximate the FY 19-20 Adopted Budget and the projected usage will remain approximately the same at 125,600 pounds. The anionic polymer budget for FY 2020-21 is \$446,000.

Cationic Polymer – Cationic polymer is added to digested sludge prior to dewatering to improve the sludge and water separation process. Cationic polymer is also added to the waste activated sludge dissolved air flotation thickeners (DAFTs) to improve solids coagulation. The cationic polymer budget for FY 2020-21 is \$5.3 million, consistent with the projected amount for FY 2019-20.

Ferric Chloride – Ferric chloride is an iron salt which is used to increase the solids removal efficiencies in the primary treatment process and to control digester hydrogen sulfide. As the amount of ferric chloride is optimized in primary treatment, additional amounts of ferric chloride are added to the digesters to control hydrogen sulfide. The proposed ferric chloride budget for FY 2020-21 is \$3.2 million, consistent with the projected amount for FY 2019-20.

4b) Odor Control	\$6.9	\$7.2
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Sodium Hydroxide (Caustic Soda) – Caustic soda (25%) is used in the foul air scrubbers and in the District’s main trunk lines (50%) tributary to the treatment plants. The total proposed caustic soda budget for FY 2020-21 is \$749,000.

Muriatic Acid – Muriatic Acid (Hydrochloric Acid) is used to backwash the media in the foul air scrubbers, associated piping, and pumps. This cleans deposits caused by hard

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water, sulfides from the reaction with the foul air, and caustic soda used in the scrubbing process. Muriatic Acid is also used as a method for cleaning polymer tanks. The proposed budget for FY 2020-21 is \$20,000.

Magnesium Hydroxide, Trunklines – Magnesium hydroxide reduces the formation of hydrogen sulfide in the collection system, which causes odor and corrosion. Contract services include supply, tanks and delivery equipment, operational monitoring, sampling, reporting, and on-going maintenance services for odor control chemical dosing systems within the wastewater collection and conveyance system. The proposed budget for FY 2020-21 is \$2.6 million.

Ferrous Chloride, Trunklines – Ferrous Chloride is used in the trunks to reduce hydrogen sulfide generation. This contract provides supply, tanks and delivery equipment, operational monitoring, sampling, reporting, and on-going maintenance services for odor control chemical dosing systems within the wastewater collection and conveyance system. The previously approved and proposed budget in FY 2020-21 is \$2.6 million.

Calcium Nitrate, Trunklines – Calcium nitrate is a biological approach to controlling odors in wastewater. It provides the naturally occurring bacteria with an alternate source of oxygen which, when metabolized, produces nitrogen gas as a byproduct rather than the sulfides produced by the naturally occurring sources of oxygen. This contract provides supply, tanks and delivery equipment, operational monitoring, sampling, reporting, and on-going maintenance services for odor control chemical dosing systems within the wastewater collection and conveyance system. The FY 2020-21 proposed budget is \$438,000.

Bleach, Treatment Plant Odor Control – Bleach is used in treatment plant odor control scrubbers and has replaced more expensive chemicals. For FY 2020-21, staff proposes a budget of \$392,000, a \$30,000 increase over the previously approved budget. The increase is due to the thickening and dewatering facility being online.

4c) Disinfection	\$0.2	\$0.2
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Sodium Hypochlorite (Bleach) – The treatment plant bleach usage is for disinfection of plant water and the control of filamentous organisms in activated sludge in the secondary treatment process. The proposed budget for FY 2020-21 is \$213,000.

4d) Tools and Safety Equipment / Tools	\$1.7	\$1.2
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O&M uses 74% of these budgets with another 17% budgeted in Risk Management. Costs include various personal protective equipment items required for job safety.

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Reflective vests are now required in the working treatment plants and collection system, increasing expenses for safety equipment.

4e) Laboratory Chemicals and Supplies	\$0.7	\$0.7
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Approximately 86% of this budget supports the Environmental Laboratory purchases of glassware, filtration supplies, solvents used for organic extractions, acids and bases used in metals digestion and glassware cleaning, reagents, a variety of standards used in quality assurance of the tests, specialty gases, microbiology supplies and growth media, chromatography columns, test organisms for bioassay, toxicity, and various other laboratory supplies.

4f) Gas, Diesel, and Oil	\$0.6	\$0.6
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Gasoline, compressed natural gas, diesel, and oil are used in the operation of the mobile equipment, within generators and other operating equipment. The future price of gasoline and natural gas are the major impacts to these budgets.

4g) Other	\$0.8	\$0.7
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Other smaller operating expenses are collectively reported within this line item such as janitorial supplies, miscellaneous operating supplies, and property tax fees.

5) UTILITIES	\$8.4	\$8.4
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5a) Power	\$6.1	\$6.1
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Electricity –

The estimated consumption and resulting costs for electrical energy purchased from Southern California Edison for the FY 2020-21 are shown below and total \$5,229,000. This estimate includes normal operations of CenGen and assumes savings for battery utilization at Plant No.1. This budgetary number contains no contingency and excludes the electricity requirements of all outlying pump stations.

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**Proposed Proposed
2020-21 2021-22**

Projected costs (FY 19-20)				
	Item	Estimated Consumption	Costs	Proposed Budget Value
55041	Plant No. 1 Energy Charges (kWh)	50,000,000	\$0.06	\$3,000,000
	Plant No. 1 Demand Charges			\$1,050,000
	Plant No. 1 Other Charges			\$400,000
	Total for Plant 1		\$4,450,000	
	Total for Plant 1 (Including FE 17-03)*			\$4,050,000
55042	Plant No. 2 Energy Charges (kWh)	5,200,000	\$0.06	\$312,000
	Plant No. 2 Demand Charges			\$100,000
	Plant No. 2 Fixed Charges			\$170,000
	Total for Plant 2		\$582,000	
55043	Contracts Admin Trailers			\$35,000
55043	Laboratory	3,500,000	\$0.13	\$455,000
55043	Administration Building	710,000	\$0.15	\$106,500
	Total			\$5,228,500

(*) It is assumed \$400k saving due to battery utilization (FE 17-03)

5b) Water **\$1.1 \$1.1**

Potable Water – The potable water budget includes the water supplied by the City of Fountain Valley for Plant No. 1 and the City of Huntington Beach for Plant No. 2. Approximately 5% of the potable water at Plant No. 1 is used for domestic uses and less than 1% is used for irrigation. Most of the irrigation at both plants uses reclaimed water. Less than 1% of the potable water used at Plant No. 2 is for domestic uses due to the relatively small number of employees at Plant No. 2. The projected expense for FY 2020-21 and FY 2021-22 is \$1.1 million.

5c) Natural Gas **\$0.7 \$0.7**

For the fiscal year of 2020-21, the estimated natural gas to be purchased from Southern California Gas Company and the gas marketer (i.e., Constellation Energy) for Plants 1 and 2 and the associated costs are shown below:

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**Proposed Proposed
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FY 2020-21				
	User	Estimated Consumption (Therm)	Cost (\$ Per Therm)	Total Cost (\$)
55031	Plant No. 1	490,000	\$0.65	\$318,500
55033	Plant No. 1 – Support Buildings	60,000	\$0.80	\$48,000
55032	Plant No. 2	540,000	\$0.65	\$351,000
55033	Plant No. 2 – Support Buildings	14,000	\$0.80	\$11,200
	Total	1,104,000		\$728,700

The total FY 2020-21 gas unit cost is approximating than last year. Central Generation actual gas usage was higher with operation of engines for on peak and mid peak shaving during last summer. The market remains volatile for natural gas price in Southern California and will be monitored.

The “core subscription” is natural gas purchased directly from The Gas Company and used mainly for building heating and supplemental process heating. The natural gas used for Central Generation is purchased from a gas marketer, Constellation Energy, and transported through The Gas Company conveyance system at stipulated cost. The projected prices include the costs that will be paid to both entities.

5d) Telephone **\$0.5** **\$0.5**

Included in this line item is the funding for over 600 landlines and mobile phones for management and field staff, as deemed appropriate.

6) PROFESSIONAL SERVICES **\$5.7** **\$5.8**

6a) Legal Services **\$1.6** **\$1.6**

Legal services are services primarily provided by General Counsel for general legal support. Other specialized legal services from other firms are also included in this budgeted amount.

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6b) Engineering Services	\$1.0	\$1.0

These services augment technical support for critical projects. In FY 2020-21 requested engineering services include support for corrosion assessment; coatings and cathodic protection; engineering support staffing for civil, mechanical, and instrumentation programs; and support to maintenance projects falling under the purview of the CAMP.

6c) Advocacy Efforts	\$0.2	\$0.2
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These are consultant services for promoting the District's interests in Sacramento and Washington D.C concerning legislation and funding.

6d) Audit and Accounting	\$0.2	\$0.2
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These services represent the cost for the District's independent annual financial audit and contracted internal auditing services.

6e) Software Program Consultant	\$0.3	\$0.3
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These support costs are required to supplement programming staff as new software versions and new programs are implemented and revised; they are also in support of the SCADA/ (supervisory control and data acquisition) system for process monitoring and controlling.

6f) Other	\$2.4	\$2.5
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Professional services also include labor and industrial hygiene services. Collectively reported within the line item, "Other" are various services including succession planning, pre-employment testing, actuarial services, performance management consultant, local sewer service fee rate study, specialized onsite training, strategic outsourcing, development of lock-out – tag-out procedures, stratus environmental groundwater extraction, OCHCA inspections, and grant applications, and an analysis of the business practices of the of maintenance support services.

7) OTHER OPERATING SUPPLIES	\$4.7	\$4.7
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7a) Property & General Liability Insurance	\$1.8	\$1.8
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The District's outside excess general liability insurance coverage is \$40 million with a self- insurance retention of \$500,000. The District's property insurance coverage of \$1 billion for perils other than flood and earthquake, \$300 million for flood, and \$25 million for earthquake is subject to self-insurance retentions of \$250,000 for all perils other than flood and earthquake, \$100,000 for flood, and 5% per structure with a minimum of \$5 million for earthquake.

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The proposed appropriation is needed to fund insurance premiums, claims, and maintain the recommended level of reserve within the general liability and property self-insurance fund.

7b) Regulatory Operating Fees	\$1.0	\$1.0
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Payments to the Regional Water Quality Control Board for the National Pollution Discharge Elimination System (NPDES) Permit and to the South Coast Air Quality Management District for permit fees.

7c) Other Operating	\$0.5	\$0.6
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Other material, supplies, and services collectively reported within this line item.

7d) General Manager Contingency	\$0.8	\$0.8
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These funds are centrally budgeted and expended through the direct discretion and approval of the General Manager to support unanticipated District needs or requests of the Board.

7e) Prior year Appropriations	\$0.5	\$0.4
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Since the operating budget lapses at the end of each fiscal year, funds are needed to be set aside for contacts, purchases, commitments, and other legal obligations that have been incurred prior to June 30 in the prior year, but goods or services have not been delivered until after June 30 in the new budget year. (Projected FY 2019-20 budget reflects application of these funds.)

7f) Other Non-Operating	\$0.1	\$0.1
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Other non-operating expenses and obsolete inventory are in this group of expenses.

8) ADMINISTRATIVE EXPENSE	\$2.0	\$1.9
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8a) Small Computer Items	\$0.9	\$1.0
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New Computers/Notebooks/Tablets, printers, monitors, networking equipment, computer peripherals, digital equipment, PDAs, digital cameras, etc.

8b) Memberships	\$0.6	\$0.6
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OCSD's largest membership costs are for District-wide participation in groups such as the National Association of Clean Water, the National Water Research Institute, the Water Environment Research Foundation, the California Association of Sanitation

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Agencies, the Southern California Alliance of Publicly Owned Treatment Works, the Association of California Water Agencies, and the Center for Demographic Research. A minor portion of these expenses is for staff memberships in professional associations.		

8c) Supplies, Postage & Publications	\$0.1	\$0.1
Office supplies include such items as envelopes, letterhead, notebooks, calendars, etc.		

8d) Other	\$0.4	\$0.2
Other smaller administrative expenses collectively reported within this line item.		

9) RESEARCH AND MONITORING	\$1.3	\$1.4
9a) Environmental Monitoring	\$0.7	\$0.7
The budget line item for “Environmental Monitoring” includes costs associated with the District’s NPDES permit-required ocean monitoring program.		

In addition to the funds needed to conduct the permit-required ocean monitoring program, environmental monitoring also includes operating funds and insurance fees for the District’s ocean monitoring vessel, the M/V Nerissa.

9b) Air Quality Monitoring	\$0.1	\$0.1
Periodic monitoring and analysis of air emissions requires testing from various sources including the central generation facilities, validation of emissions from continuous monitoring equipment, and source testing after CIP installation/modification (i.e. P1 trickling filters, P1 primary basin install and modifications, etc.). Periodically, there is a requirement to test the waste gas flares.		

9c) Other Research	\$0.5	\$0.6
OCSD contributes annually to research organizations such as the Southern California Coastal Water Research Project.		

10) TRAINING AND MEETINGS	\$1.1	\$1.0
10a) Training	\$0.9	\$0.8
This category includes ongoing technical and safety training and materials for staff, required training for computerized plant monitoring, and control systems and training to		

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allow for a more adaptive and flexible work force. Cost savings have been achieved in part through increased use of on-line training.

10b) Meetings	\$0.2	\$0.2
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The General Manager has reviewed all meeting request budgets for necessity, duplication, and redundancy and has limited this amount to a responsible level.

11) PRINTING AND PUBLISHING	\$0.4	\$0.4
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11a) In-House Publishing	\$0.2	\$0.2
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Although the budget provides for some outside reproduction, most OCSD printing activities are completed In-house, reflecting an expanded management information system and administrative requirements, as well as continuing demand by the public and regulatory agencies for information. These activities including printing of District maps, brochures, Board reports and agenda items, budget materials, etc.

11b) Other	\$0.2	\$0.2
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Includes outside printing and publishing expenses and notices and ads.

12) COST ALLOCATION	(\$20.9)	(\$21.7)
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This represents direct and indirect labor, benefits, materials, and services charged to the Capital Improvement Program (CIP) where the related work was performed.