TO: BOARD OF DIRECTORS

DATE: JUNE 15, 2007

EDIT WATER PROJECTS PRIORITY LISTING

AGENDA ITEM

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JUNE 20, 2007

ITEM

Receive recommended Water & Sewer Master Plan project priorities listings from Cannon and edit listings [EDIT LISTINGS & SET AUGUST 15 WORKSHOP].

BACKGROUND

Attached from Cannon Associates is a cover letter, a listing of water projects and plan sheet assuming constant flow, and a listing of water projects and plan sheet assuming variable flow. The constant flow listing/plan is based on the assumption that the supplemental water feed is provided at a fixed rate similar to that described in the Santa Maria Waterline Intertie Project MOU. The variable flow listing/plan is based on the assumption that either the feed or NCSD's plumbing allow for significant modulation of the feed volume to match system demand.

Larry Kraemer and Jeff Spannbauer from Cannon will present these materials to your Honorable Board and answer questions.

RECOMMENDATION

The intent of this item is to provide sufficient information to your Honorable Board so that you can discuss the options presented and edit the proposed listings of projects. If your Honorable Board can reach a consensus on selection of projects at this meeting, then staff recommends that your Honorable Board set a follow-up workshop for Wednesday August 15, 2007 to discuss the Draft Master Plan including the sewer projects discussed on May 16, 2007, the water projects discussed at this meeting, and the balance of the Water and Sewer Master Plan chapters.

ATTACHMENTS

- Cannon Cover Letter
- Constant Flow Projects Listing
- Constant Flow Plan Sheet
- Variable Flow Projects Listing
- Variable Flow Plan Sheet

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UNGINEERS PLANNERS SURVEYORS

Document Transmittal

June 13, 2007

| To: | Bruce Buel |
|-------|------------------------------------|
| | Nipomo Community Services District |
| From: | Larry Kraemer, PE |

Jeff Spannbauer, PE

Subject: Proposed Water System Improvement Projects

A computer model of the water system was developed to analyze existing supply and demand conditions, and to determine needs for supplemental supply under both existing and anticipated future demand scenarios.

To create the model, a base map was first prepared in AutoCAD. GIS data provided by NCSD was used to create the base map showing parcel lines, zoning, contours, and the existing water system itself. Separate NCSD-provided maps were used to delineate service area boundaries.

The model was based on water usage projections discussed in Tech Memo 1. Scenario 1 (see Tech Memo 1) was used as the basis for analysis of future conditions. Current observed conditions were used to calibrate the model, and to confirm appropriate duty factors for analysis of future conditions. Field measurements were taken as well, to determine physical properties and flows for model calibration.

A version of the model was also developed with the assumption that the District would be receiving supplemental water from an outside water source, as mandated. Two supply conditions were considered: variable flow and constant (or fixed) flow. Variable flow supply assumes that the District can specify the amount of water needed on a limited term basis, such as daily or weekly, so the quantity of supplemental water purchased can be adjusted to meet District needs. Constant flow assumes that the same amount of supplemental water is delivered to the District each day, regardless of need. These two supplemental supply conditions were considered for both existing and future conditions.

The water system was analyzed to review system design requirements, storage requirements, and supply requirements. District system design criteria specify that pipeline velocities must remain less than five feet per second, or that residual pressure remains at or above 20 psi. Tank storage requirements require that sufficient volume be maintained for fire flow storage, emergency storage of at least 50 gallons per day per capita, and equalization storage to maintain availability of water during peak conditions. District supply requirements specify that the supply system be capable of replenishing maximum daily demand draw on the system within 24 hours.

The model was run to determine pressures at nodes and velocities in pipelines under both maximum daily demand plus fire flow conditions and peak hour demand conditions. Storage

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calculations were performed using the District's historical demand data and future usage projections. SCADA data on the existing system was reviewed to confirm adequacy of current supply; and calculations were performed to analyze the adequacy of system supply with supplemental water for existing and future conditions. If model results or calculations indicated failure of any of the District requirements for system design, storage or supply, then recommendations were determined to correct the problem.

The following scenarios were analyzed: existing conditions with existing supply; existing condition with supplemental water supply; and, future conditions with supplemental water supply. For each scenario, the model was run to evaluate flow bottlenecks and dead end mains, and production deficiencies, and to identify appropriate solutions. Anticipated future improvements were built into the model to accommodate new demands, and additional projects were identified to address current and future needs. The attached "Recommended Model System Improvements" draft figures show the recommended water systems improvements modification which were considered.

Other water system projects considered include relocation of water lines to accommodate planned County drainage structure improvements, conversion of the Eureka well from electric power to natural gas, improvements to reservoir mixing, and general system backbone improvements and maintenance.

Two "Recommended Water System Improvements" draft tables are attached: one for constant flow and one for variable flow. Both tables show the recommended water system projects and estimated costs for each project. Recommended priorities are indicated as well. These project lists are broken down by projects designed to meet existing needs, those designed to meet existing needs with supplemental water supply, and those designed to meet future needs.

Projects and priorities will be discussed in more detail in subsequent technical memoranda/master plan report after obtaining feedback from NCSD Board and Staff.

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| OVEME | NTS TO MEET EXI | STING NEEDS | | | | _ | | | |
| | | STING NEEDS | | | | | | | |
| | | | | | Diam. (in) | Unit | Quantity | Unit Cost ¹ | Total Cost ² |
| PRIOF | RITY 1 - ELIMINATIN | G EXISTING BO | TTLENECKS | | Diam. (m) | Unit | quantity | onit oost | Total Oost |
| | Camino Caballo - E | and the second state of th | and the second se | | 16 | LF | 1,325 | \$200 | \$270,000 |
| | Willow Road - Pom | | | | 14 | LF | 1,500 | \$180 | \$270,000 |
| | Grande from Cyclo | | 3 | | 8 | LF | 660 | \$140 | \$93,000 |
| | Frontage from Stor | | | | 8 | LF | 290 | \$140 | \$41,000 |
| | Frontage from Hill t | o Grande | | | 8 | LF | 1,180 | \$140 | \$170,000 |
| | | | | | | | Arrienz Conten | Subtotal | \$850,000 |
| PRIOF | RITY 1 - ELIMINATIN | G EXISTING BO | TTLENECKS - BLAC | K LAKE | | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| | | | h to existing 8" main | | 8 | LF | 85 | \$140 | \$12,000 |
| | | | | | | | 1.111 | Subtotal: | \$12,000 |
| PRIOF | RITY 1 - SLO COUN | TY DRAINAGE PI | ROJECT - RELOCAT | ING WATER MAIN | S | | | Cubiolai. | \$12,000 |
| | Tefft Street Box Cu | | | | 10 | LF | 150 | \$160 | \$24,000 |
| - | Thompson Avenue | and and have a second and a second | | | 8 | LF | 150 | \$140 | \$21,000 |
| | Mallagh Arch Culve | | | | 8 | LF | 150 | \$140 | \$21,000 |
| | Mallagh Box Culver | | | | 8 | LF | 150 | \$140 | \$21,000 |
| | Burton Street Box (| Culvert Improveme | ents | | 8 | LF | 150 | \$140 | \$21,000 |
| | | · · · · · | | | 1 | | | Subtotal | \$110,000 |
| PRIOF | RITY 2 - OPERATIO | NAL IMPROVEME | NTS | | | | | Gubtotur | \$770,000 |
| | Standpipe Mixing | | | | | LS | 1 | \$200,000 | \$200,000 |
| | | version from Electr | icity to Natural Gas | | | LS | 1 | \$70,000 | \$70,000 |
| | | | | | | | | Subtotal | \$270,000 |
| PRIOF | RITY 2 - LOOPING | DEAD-END MAINS | 3 | | | | | Gubiotai | \$270,000 |
| 11401 | Brytec Ct - extend 8 | and and the second data and the | | | 8 | LF | 20 | \$140 | \$2,800 |
| 1 | N. Blume - extend | | | | 8 | LF | 370 | \$140 | \$52,000 |
| - | N. Crosby - extend | | | | 8 | LF | 90 | \$140 | \$13,000 |
| | Eve Street - from B | | | | 8 | LF | 440 | \$140 | \$62,000 |
| - | Colt Lane from Glo | | | | 8 | LF | 1,800 | \$140 | \$260,000 |
| - | Grove from Oak GI | | | | 8 | LF | 650 | \$140 | \$91,000 |
| | Branch from Wilson | The second | | | 8 | LF | 730 | \$140 | \$110,000 |
| | Camino Caballo fro | | age | | 8 | LF | 500 | \$140 | \$70,000 |
| | | | | | | 1000 | | Subtotal | \$670,000 |
| PRIOF | RITY 3 - PIPE REPL | ACEMENT PROG | RAM | | | | | oustotur | P 010,000 |
| | Replace 5% of Valv | | | | | EA | 92 | \$2,000 | \$190,000 |
| | Replace 5% of Fire | | | | | EA | 33 | \$4,500 | \$150,000 |
| 1 | Replace 5% of Air/ | | | | | EA | 11 | \$2,000 | \$22,000 |
| | Replace 10% of Wa | | | | | EA | 300 | \$1,250 | \$380,000 |
| | | | | | | | | Subtotal: | \$750,000 |
| PRIOF | RITY 3 - SUMMIT ST | TATION PRESSU | RE/FIRE PROTECTI | ON UPGRADES | | | | - the to turn | |
| | | | mp Station, & Valving | | | LS | 1 | \$500,000 | \$500,000 |
| | | | | | | | | Subtotal: | \$500,000 |
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| | | | | | TOT | AL COSTS | TO MEET EX | STING NEEDS: | \$3,200,000 |
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| | | | Quantity | Unit Cost | Total Cost |
| | | | 4 000 | \$260 | \$1 200 000 |
| | | | | | \$1,300,000 |
| | | 1000 | | | \$1,500,000 |
| I nompson - Menishau to High School | 1.1 - 3-12-12- | | | | \$170,000 |
| | | | | | \$650,000 |
| Freeway Crossing - Oak Glen to Frontage at Mehishau | | | | | \$58,000 |
| | | | and the second se | | \$550,000 |
| | | 200 | | | \$120,000 |
| Freeway Crossing - Oak Glen to Frontage at Amado | | | | | \$45,000 |
| N. Frontage - Hwy 101 Crossing to Lindon | | | 1,250 | \$200 | \$250,000 |
| N. Frontage - Lindon to Juniper | 12 | LF | 1,600 | \$170 | \$280,000 |
| Calle Fresa - Pomeroy to Camino Caballo | 10 | LF | 1,200 | \$160 | \$200,000 |
| Orchard - Tefft to Theodora | 12 | LF | 850 | \$170 | \$150,000 |
| S. Frontage - Tefft to Southland | 12 | LF | 6,400 | \$170 | \$1,100,000 |
| | | | | Subtotal | \$6,400,000 |
| | | | | | ANALY AND AN AND AN AN AN ANALY AND AN |
| epends on supplemental water supply) | | | | | |
| RITY 1 - FIXED FLOW RATE SUPPLEMENTAL WATER SUPPLY | EQUALIZATION STO | RAGE | | | |
| Tank Facility - 1MG | | LS | 1 | \$1,000,000 | \$1,000,000 |
| Land for 4MG Tank Site (2-acres) | | | | | TBD |
| | | | | Subtotal | \$1,000,000 |
| be determined) | | | | | |
| RITY 1 - SUPPLIMENTAL WATER FILL LINES TO THE OUAD TA | ANKS | | | | |
| | | IF | 37,000 | \$215 | \$8,000,000 |
| | | | | | \$6,700,000 |
| | 10 | | Statement in successive statements and | | \$750,000 |
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| | | | | Subtotal | \$8,750,000 |
| | TOTAL COST | | | WATER NEEDS | \$16,150,000 |
| | TOTAL COST | TOMEETOO | I LL.MLITIAL | TATEN NEEDS | \$70,700,000 |
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| | ON SYSTEM RITY 1 - BACKBONE IMPROVEMENTS TO ACCOMMODATE SUNTY 1 - BACKBONE IMPROVEMENTS TO ACCOMMODATE SUNTY 1 - FIXED FLOW RATE SUPPLEMENTAL WATER SUPPLY North Dana Foothill Road - Quad Tanks to Mehlshau Mehlshau - North Dana Foothill Road to Thompson Thompson - Mehlshau to High School Mehlshau - Thompson to Oak Glen Freeway Crossing - Oak Glen to Frontage at Mehlshau S. Oak Glen - Tefft to Amado Amado - S. Oak Glen to Highway 101 Freeway Crossing - Oak Glen to Frontage at Amado N. Frontage - Hwy 101 Crossing to Lindon N. Frontage - Lindon to Juniper Calle Fresa - Pomeroy to Camino Caballo Orchard - Tefft to Theodora S. Frontage - Tefft to Southland Pepends on supplemental water supply) RITY 1 - FIXED FLOW RATE SUPPLEMENTAL WATER SUPPLY Tank Facility - 1MG Land for 4MG Tank Site (2-acres) be determined) | RTY 1 - BACKBONE IMPROVEMENTS TO ACCOMMODATE SUPPLEMENTAL WATER North Dana Foothill Road - Quad Tanks to Mehishau 24 Mehishau - North Dana Foothill Road to Thompson 24 Thompson - Mehishau to High School 14 Mehishau - Thompson to Oak Glen 20 Freeway Crossing - Oak Glen to Frontage at Mehishau 20 S. Oak Glen - Tefft to Amado 14 Amado - S. Oak Glen to Highway 101 14 Freeway Crossing - Oak Glen to Frontage at Amado 14 N. Frontage - Hwy 101 Crossing to Lindon 16 N. Frontage - Lindon to Juniper 12 Calle Fresa - Pomeroy to Camino Caballo 10 Orchard - Tefft to Theodora 12 S. Frontage - Tefft to Southland 12 RTY 1 - FIXED FLOW RATE SUPPLEMENTAL WATER SUPPLY EQUALIZATION STOI Tank Facility - 1MG 14 Land for 4MG Tank Site (2-acres) 14 De determined) 18 Option 1 - 18" Fill line north of Tefft 18 Booster Station 18 | DN SYSTEM Diam. (in) Unit NOTH 1 - BACKBONE IMPROVEMENTS TO ACCOMMODATE SUPPLEMENTAL WATER 24 LF North Dana Foothill Road - Quad Tanks to Mehlshau 24 LF Mehlshau - North Dana Foothill Road to Thompson 24 LF Thompson - Mehlshau to High School 14 LF Mehlshau - Thompson to Cak Glen 20 LF Freeway Crossing - Oak Glen to Frontage at Mehlshau 20 LF S. Oak Glen - Tefft to Amado 14 LF Amado - S. Oak Glen to Highway 101 14 LF Freeway Crossing - Oak Glen to Frontage at Amado 14 LF N. Frontage - Hwy 101 Crossing to Lindon 16 LF N. Frontage - Lindon to Juniper 12 LF Calle Fresa - Pomeroy to Camino Caballo 10 LF Orchard - Tefft to Theodora 12 LF S. Frontage - Tefft to Southland 12 LF RTY 1 - FIXED FLOW RATE SUPPLEMENTAL WATER SUPPLY EQUALIZATION STORAGE LS Tank Facility - 1MG LS LS Lard for 4MG Tank Site (2-acres) LS LS be determined) LS LS | DN SYSTEM Diam. (in) Unit Quantity RTY 1 - BACKBONE IMPROVEMENTS TO ACCOMMODATE SUPPLEMENTAL WATER - - - North Dana Foothill Road - Quad Tanks to Mehishau 24 LF 4,900 Mehishau - North Dana Foothill Road to Thompson 24 LF 5,650 Thompson - Mehishau to High School 14 LF 900 Mehishau - Thompson to Oak Glen 20 LF 2,800 Freeway Crossing - Oak Glen to Frontage at Mehishau 20 LF 2,800 Soak Glen - Tefft to Amado 14 LF 3,050 Amado - S. Oak Glen to Frontage at Amado 14 LF 250 N. Frontage - Hwy 101 Crossing to Lindon 16 LF 1,250 N. Frontage - Hwy 101 Crossing to Lindon 16 LF 1,200 Orchard - Tefft to Theodora 12 LF 6,400 S. Frontage - Tefft to Southland 12 LF 6,400 Verther and | DN SYSTEM Diam. (in) Unit Quantity Unit Cost ¹ RTY 1 - BACKBONE IMPROVEMENTS TO ACCOMMODATE SUPPLEMENTAL WATER </td |

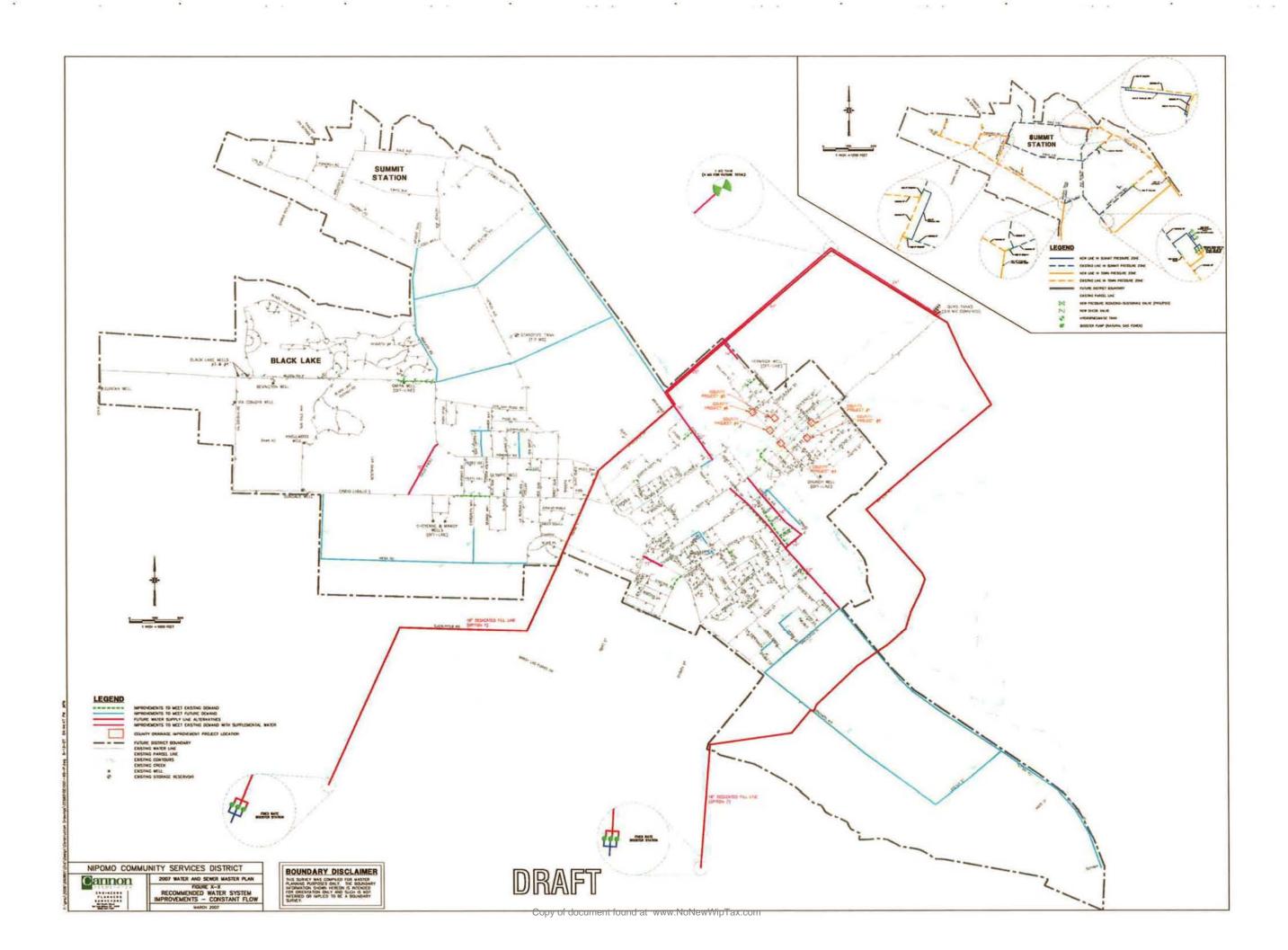
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| | | Diam. (in) | Unit | Quantity | Unit Cost ¹ | Total Cost ² |
| | ITY 1 - BACKBONE IMPROVEMENTS TO ACCOMMODATE FUTU | | | 0.400 | 0170 | 01 100 000 |
| | N. Frontage - from Hwy 101 Crossing to Future Road | 12 | LF | 8,100 | \$170 | \$1,400,000 |
| | N. Frontage - from Future Road to Summit Station | 10 | LF | 1,100 | \$160 | \$180,000 |
| | Willow Extension - N. Frontage to Hetrick | 12 | LF | 4,300 | \$170 | \$740,000 |
| | Willow Extension - Hetrick to Pomeroy | 16 | LF | 3,200 | \$200 | \$640,000 |
| | Juniper - Frontage to Mary | 8 | LF | 600 | \$140 | \$84,000 |
| | Future Road - N. Frontage to Pomeroy | 12 | LF | 6,200 | \$170 | \$1,100,000 |
| | Pomeroy - Willow to Future Road | 12 | LF | 3,500 | \$170 | \$600,000 |
| | Pomeroy - Future Road to Summit Station | 10 | LF | 2,050 | \$160 | \$330,000 |
| _ | Mesa - Charro to Viva | 10 | LF | 6,800 | \$160 | \$1,100,000 |
| | Viva - Mesa to Camino Caballo | 10 | LF | 2,650 | \$160 | \$430,000 |
| | Evergreen - Dead End to Mesa | 8 | LF | 1,350 | \$140 | \$190,000 |
| | Orchard - Southland to Joshua | 12 | LF | 8,500 | \$170 | \$1,500,000 |
| | Joshua - Orchard to S. Frontage | 12 | LF | 3,350 | \$170 | \$570,000 |
| | S. Frontage - Southland to Joshua | 12 | LF | 8,600 | \$170 | \$1,500,000 |
| | Hutton - Joshua to Cuyama | 12 | LF | 6,300 | \$170 | \$1,100,000 |
| | Southland - Frontage to Orchard | 10 | LF | 3,900 | \$160 | \$630,000 |
| | | | | | Subtotal | \$13,000,000 |
| PRIOR | ITY 1 - ELIMINATING BOTTLENECKS - BLACK LAKE | | | | | |
| | Augusta Drive - extend 8" to future line in Pomeroy | 8 | LF | 20 | \$140 | \$2,800 |
| | | | | | Subtotal: | \$2,800 |
| PRIOR | ITY 1 - FIXED FLOW RATE SUPPLEMENTAL WATER SUPPLY E | QUALIZATION STORAG | E | | | , |
| | Tank Facility - 3MG | | LS | 1 | \$3,000,000 | \$3,000,000 |
| | | | | | Subtotal: | \$3,000,000 |
| PRIOR | ITY 2 - PROPOSED LOOPS | | | | Gubiolai. | ψ0,000,000 |
| and the second s | Widow Lane / Twilight - extend 8" to loop dead-ends | 8 | LF | 1260 | \$140 | \$180,000 |
| | Tanis - extend 6" dead-end to Nellie | 8 | LF | 500 | \$140 | \$70,000 |
| | Spruce - extend 6" dead-end to Nellie | 8 | LF | 325 | \$140 | \$46,000 |
| | Bristlecone - extend 6" dead-end to Nellie | 8 | LF | 285 | and the second sec | |
| | Terrace - extend 6" dead-end to Souza | 8 | LF | 1850 | \$140 \$140 | \$40,000 \$260,000 |
| | Souza - Terrace to Oak Glen | | COLUMN, | | | |
| | | 8 | LF | 300 | \$140 | \$42,000 |
| _ | Glenhaven - San Ysidro to Amber | 8 | | 820 | \$140 | \$120,000 |
| | Hunter Ridge - Pomeroy to Glenhaven | 8 | LF | 1050 | \$140 | \$150,000 |
| | Future Road - Glenhaven to Pomeroy (between Jennie and Ten Oa | | LF | 1050 | \$140 | \$150,000 |
| | Future Road - Honey Grove to Drum | 8 | LF | 650 | \$140 | \$91,000 |
| | | | | | Subtotal | \$1,200,000 |
| _ | | | | | | |
| | | | TOTAL COST | TO MEET F | JTURE NEEDS: | \$18,000,000 |
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| | | | TOTAL | COST OF IM | PROVEMENTS: | \$37,350,000 |
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| OVEM | NTS TO MEET EXIS | TING NEEDS | | | | | | | |
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| | | | | Diam. (in) | Unit | Quantity | Unit Cost ¹ | Total Cost ² | |
| PRIO | RITY 1 - ELIMINATING | GEXISTING BOTTL | ENECKS | | | | | | |
| | Camino Caballo - Blu | e Gum west to exist | ing 16" main | 16 | LF | 1,325 | \$200 | \$270,000 | |
| | Willow Road - Pomer | | 4" main | 14 | LF | 1,500 | \$180 | \$270,000 | |
| | Grande from Cyclone | | | 8 | LF | 660 | \$140 | \$93,000 | |
| | Frontage from Story | to Banyon | | 8 | LF | 290 | \$140 | \$41,000 | |
| | Frontage from Hill to | Grande | | 8 | LF | 1,180 | \$140 | \$170,000 | |
| | | | | | | | Subtotal | \$850,000 | |
| PRIO | | | ENECKS - BLACK LAKE | | | | | | |
| | Misty Glenn Place - W | Villow Road north to | existing 8" main | 8 | LF | 85 | \$140 | \$12,000 | |
| | | | | | | | Subtotal: | \$12,000 | |
| PRIO | RITY 1 - SLO COUNT | Y DRAINAGE PROJ | ECT - RELOCATING WA | TER MAINS | | | | | - |
| | Tefft Street Box Culv | | | 10 | LF | 150 | \$160 | \$24,000 | |
| | Thompson Avenue A | | ments | 8 | LF | 150 | \$140 | \$21,000 | |
| | Mallagh Arch Culvert | | | 8 | LF | 150 | \$140 | \$21,000 | |
| | Mallagh Box Culvert | Improvements | | 8 | LF | 150 | \$140 | \$21,000 | |
| | Burton Street Box Cu | | | 8 | LF | 150 | \$140 | \$21,000 | |
| | | | | | | | Subtotal | \$110,000 | |
| PRIO | RITY 2 - OPERATION | AL IMPROVEMENT | S | | | | | | |
| | Standpipe Mixing | | | | LS | 1 | \$200,000 | \$200,000 | |
| | Eureka Well - Conve | rsion from Electricity | to Natural Gas | | LS | 1 | \$70,000 | \$70,000 | |
| | | | | | a financia di | | Subtotal | \$270,000 | |
| PRIO | RITY 2 - LOOPING DE | AD-END MAINS | | | | | | | _ |
| 1110 | Brytec Ct - extend 8" | | | 8 | LF | 20 | \$140 | \$2,800 | |
| - | N. Blume - extend 8" | | | 8 | LF | 370 | \$140 | \$52,000 | |
| | N. Crosby - extend 8 | | | 8 | LF | 90 | \$140 | \$13,000 | |
| | Eve Street - from Bui | | | 8 | LF | 440 | \$140 | \$62,000 | |
| | Colt Lane from Glory | | | 8 | LF | 1,800 | \$140 | \$260,000 | _ |
| - | Grove from Oak Gler | | | 8 | LF | 650 | \$140 | \$91,000 | - |
| - | Branch from Wilson | LE LOG / / DE SAN GIO | | 8 | LF | 730 | \$140 | \$110,000 | - |
| | Camino Caballo from | | | 8 | LF | 500 | \$140 | \$70,000 | |
| | | | | | | | Subtotal | \$670,000 | |
| PRIO | RITY 3 - PIPE REPLA | CEMENT PROGRAM | M | | | | Junioral | | |
| 1.1.0 | Replace 5% of Valve | | | | EA | 92 | \$2,000 | \$190,000 | |
| | Replace 5% of Fire H | | | | EA | 33 | \$4,500 | \$150,000 | |
| | Replace 5% of Air/Va | | | | EA | 11 | \$2,000 | \$22,000 | - |
| - | Replace 10% of Wat | | | | EA | 300 | \$1,250 | \$380,000 | |
| | | | | | 01 000 / all. | | Subtotal: | \$750,000 | |
| PRIO | RITY 3 - SUMMIT STA | TION PRESSURE | FIRE PROTECTION UPG | BADES | | - | Custotal. | \$100,000 | |
| 1110 | Hydro-pneumatic Ta | | | | LS | 1 | \$500,000 | \$500,000 | |
| | , yaro priournato ra | | | | | | Subtotal: | \$500,000 | |
| | | | | | | | Subiolal. | \$500,000 | |
| | | | | TO | TAL COST | TO MEET EY | STING NEEDS: | \$3,200,000 | _ |
| | | | | 10 | THE 0031 | I O MILLI LA | CINC NEEDS. | V0,200,000 | |
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| th Dana Foothill Ilshau - North D Impson - Mehlsh Ilshau - Thomps Ilshau - Thomps Ilshau - Thomps Dak Glen - Tefft | IMPROVEMENTS TO Road - Quad Tanks to ana Foothill Road to T nau to High School | o Mehlshau | ATE SUPPLEMENTA | Diam. (in) | Unit | Quantity | Unit Cost ¹ | Total Cost ² |
|--|---|---|--|---|---|---|---|--|
| th Dana Foothill Ilshau - North D Impson - Mehlsh Ilshau - Thomps Ilshau - Thomps Ilshau - Thomps Dak Glen - Tefft | Road - Quad Tanks to ana Foothill Road to T | o Mehlshau | | | | 1 | | |
| nlshau - North D mpson - Mehlsh nlshau - Thomps eway Crossing - Dak Glen - Tefft | ana Foothill Road to T | | | 24 | LF | 4,900 | \$260 | \$1,300,000 |
| mpson - Mehlsh Ilshau - Thomps eway Crossing - Dak Glen - Tefft | | hompson | | 24 | LF | 5,650 | \$260 | \$1,500,000 |
| llshau - Thomps eway Crossing - Dak Glen - Tefft | | | | 14 | LF | 900 | \$180 | \$170,000 |
| eway Crossing - Dak Glen - Tefft | | | | 18 | LF | 2,800 | \$215 | \$610,000 |
| oak Glen - Tefft | Oak Glen to Frontage | at Mehlshau | | 18 | LF | 250 | \$215 | \$54,000 |
| | to Amado | | | 14 | LF | 3,050 | \$180 | \$550,000 |
| ado - S. Oak Gle | en to Highway 101 | | | 14 | LF | 650 | \$180 | \$120,000 |
| | Oak Glen to Frontage | e at Amado | | 14 | LF | 250 | \$180 | \$45,000 |
| rontage - Hwy | 01 Crossing to Sandy | dale | | 16 | LF | 650 | \$200 | \$130,000 |
| rontage - Sand | dale to Lindon | | | 14 | LF | 650 | \$180 | \$120,000 |
| rontage - Lindor | to Juniper | | | 12 | LF | 2,050 | \$170 | \$350,000 |
| e Fresa - Pome | roy to Camino Caballo | | | 10 | LF | 1,200 | \$160 | \$200,000 |
| hard - Tefft to T | heodora | | | 12 | LF | 850 | \$170 | \$150,000 |
| | | | | 12 | LF | 6,400 | \$170 | \$1,100,000 |
| nino Caballo - B | lue Gum to Osage | | | 16 | LF | 3,800 | \$200 | \$760,000 |
| | | | | | | | Subtotal | \$7,200,000 |
| | | | | | | | | |
| nds on suppler | mental water supply) | | | | | | | |
| 1 - FIXED FLO | W RATE SUPPLEME | NTAL WATER S | UPPLY EQUALIZATI | ON STORAGE | A CONTRACT OF A | | | |
| | | | | | LS | 1 | \$1,000,000 | \$1,000,000 |
| d for 4MG Tank | Site (2-acres) | | | | | | | TBD |
| | | | | | | | Subtotal | \$1,000,000 |
| | | | | | | | | |
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| | | | | | | | | |
| | o Flaco to intersect of | Viva and Camin | o Caballo | 18 | LF | 11,350 | \$215 | \$2,400,000 |
| ster Station | | | | | LS | 1 | \$750,000 | \$750,000 |
| | | | | | | | Subtotal | \$3,200,000 |
| | | | | | | | | |
| | | | TOT | AL COST TO | MEET SUI | PPLIMENTAL | NATER NEEDS | \$11,400,000 |
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| lanius of frames I | unting 0004 Martin Di | na Fatimata A | 0004 | | | | | |
| | rontage - Lindor le Fresa - Pome chard - Tefft to Ti Frontage - Tefft t mino Caballo - B ends on suppler (1 - FIXED FLO) hk Facility - 1MG hd for 4MG Tank (1 - SUPPLIMEN Fill line from Os poster Station | rontage - Lindon to Juniper le Fresa - Pomeroy to Camino Caballo chard - Tefft to Theodora Frontage - Tefft to Southland mino Caballo - Blue Gum to Osage ands on supplemental water supply) 1 - FIXED FLOW RATE SUPPLEMEInk Facility - 1MG and for 4MG Tank Site (2-acres) determined) 1 - SUPPLIMENTAL WATER FILL LI Fill line from Oso Flaco to intersect of oster Station | terived from adjusting 2001 Master Plan Estimate April | frontage - Lindon to Juniper le Fresa - Pomeroy to Camino Caballo shard - Tefft to Theodora Frontage - Tefft to Southland mino Caballo - Blue Gum to Osage 1 - FIXED FLOW RATE SUPPLEMENTAL WATER SUPPLY EQUALIZATI hk Facility - 1MG do for 4MG Tank Site (2-acres) 4 determined) 1 - SUPPLIMENTAL WATER FILL LINES Fill line from Oso Flaco to intersect of Viva and Camino Caballo ster Station 707 1 - SUPPLIMENTAL WATER FILL LINES Fill line from Oso Flaco to intersect of Viva and Camino Caballo ster Station 707 1 - SUPPLIMENTAL WATER FILL LINES Fill line from Oso Flaco to intersect of Viva and Camino Caballo ster Station 707 1 - SUPPLIMENTAL WATER FILL LINES Fill line from Oso Flaco to intersect of Viva and Camino Caballo ster Station 1 | irontage - Lindon to Juniper 12 le Fresa - Pomercy to Camino Caballo 10 hard - Tefft to Theodora 12 irontage - Tefft to Southland 12 mino Caballo - Blue Gum to Osage 16 inds on supplemental water supply) 1 - FIXED FLOW RATE SUPPLEMENTAL WATER SUPPLY EQUALIZATION STORAGE in A Facility - 1MG ind for 4MG Tank Site (2-acres) ind for 4MG Tank Site (2-acres) indextra fill line from Oso Flaco to intersect of Viva and Camino Caballo 18 Station intersect of Viva and Camino Caballo 18 intersect of Viva and Camino Caballo 18 oster Station intersect of Viva and Camino Caballo 18 intersect of Viva and Camino Caballo 19< | riontage - Lindon to Juniper le Fresa - Pomeroy to Camino Caballo hard - Tefft to Theodora Tornage - Tefft to Southland into Caballo - Blue Gum to Osage inds on supplemental water supply) 1 - FIXED FLOW RATE SUPPLEMENTAL WATER SUPPLY EQUALIZATION STORAGE is Facility - 1MG id for 4MG Tank Site (2-acres) determined) 1 - SUPPLIMENTAL WATER FILL LINES Fill line from Oso Flaco to intersect of Viva and Camino Caballo 18 LF Ster Station COTAL COST TO MEET SUP COST TO | irontage - Lindon to Juniper 12 LF 2,050 le Fresa - Pomeroy to Camino Caballo 10 LF 1,200 htrad - Tefft to Theodora 112 LF 850 Frontage - Tefft to Southland 12 LF 6,400 mino Caballo - Blue Gum to Osage 16 LF 3,800 indon of supplemental water supply) | irontage - Lindon to Juniperi 12 LF 2,050 \$170 le Fresa - Pomeroy to Camino Caballo 10 LF 1,200 \$160 irnon caballo - Blue Gum to Osage 12 LF 850 \$170 irnon caballo - Blue Gum to Osage 16 LF 3,800 \$200 inds on supplemental water supply) 1 - - Subtotal inds on supplemental water supply) - - - Subtotal inds on supplemental water supply) - - - Subtotal ind for 4MG Tank Site (2-acres) LS 1 \$1,000,000 Subtotal idetermined) - Subtotal - Subtotal idetermined) - Subtotal Subtotal - if Illine from Oso Flaco to intersect of Viva and Camino Caballo 18 LF 11,350 \$215 ister Station LS 1 \$750,000 - - - ister Station LS 1 - - - - |

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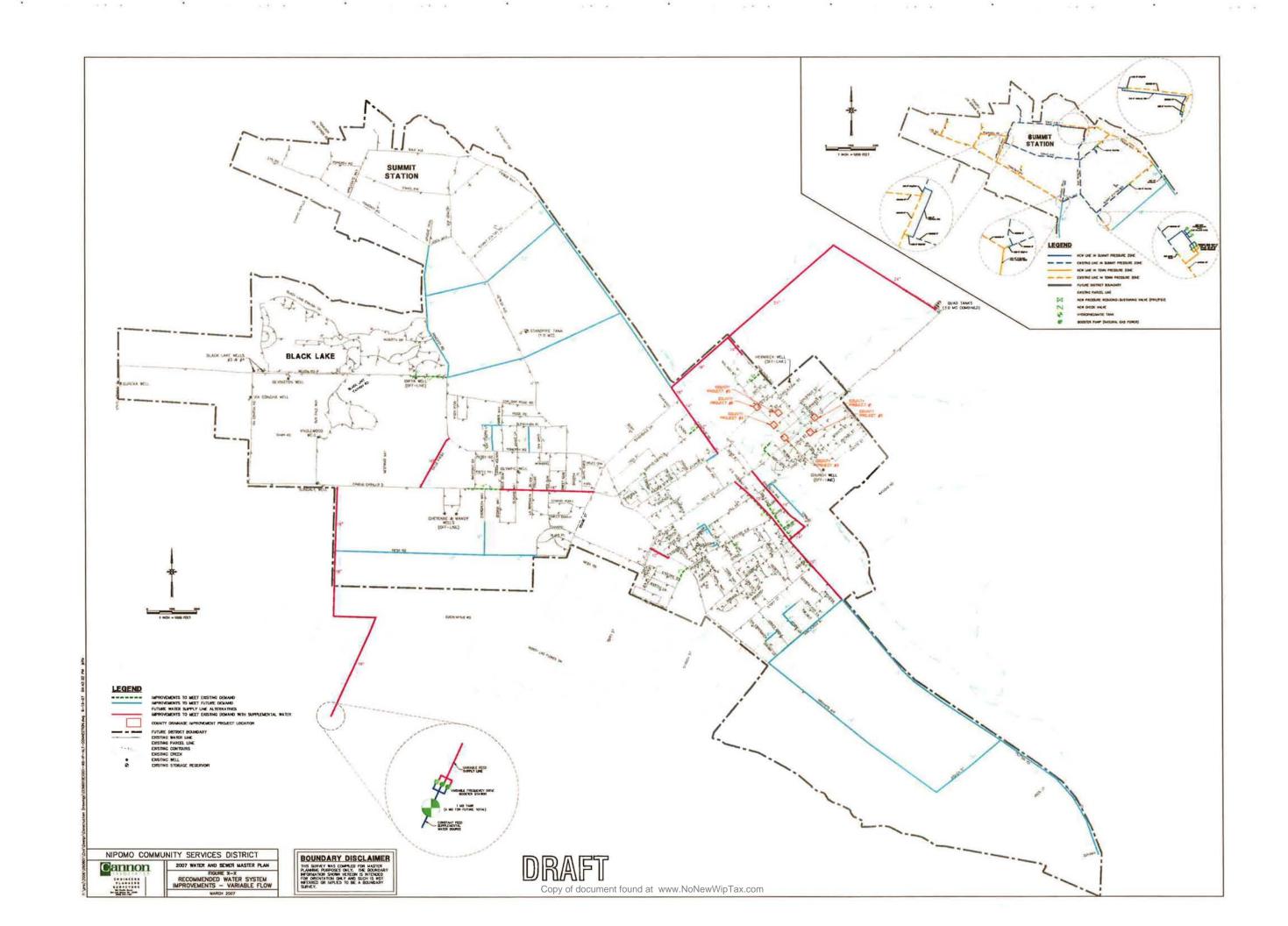
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| BUTIC | DN SYSTEM | Diam. (in) | Unit | Quantity | Unit Cost ¹ | Total Cost ² |
|--|---|----------------------|-----------|--------------|------------------------|-------------------------|
| a stand all and the state of the state | RITY 1 - BACKBONE IMPROVEMENTS TO ACCOMMODATE FUTUR | | 0 | Quantity | Child Cold | |
| | N. Frontage - from Hwy 101 Crossing to Future Road | 12 | LF | 8,100 | \$170 | \$1,400,000 |
| | N. Frontage - from Future Road to Summit Station | 10 | LF | 1,100 | \$160 | \$180,000 |
| | Willow Extension - N. Frontage to Hetrick | 12 | LF | 4,300 | \$170 | \$740,000 |
| | Willow Extension - Hetrick to Pomeroy | 12 | LF | 3,200 | \$170 | \$550,000 |
| | Future Road - N. Frontage to Pomeroy | 12 | LF | 6,200 | \$170 | \$1,100,000 |
| | Pomeroy - Willow to Future Road | 12 | LF | 3,500 | \$170 | \$600,000 |
| | Pomeroy - Future Road to Summit Station | 10 | LF | 2,050 | \$160 | \$330,000 |
| | Mesa - Charro to Viva | 10 | LF | 6,800 | \$160 | \$1,100,000 |
| | Evergreen - Dead End to Mesa | 8 | LF | 1,350 | \$140 | \$190,000 |
| | Orchard - Southland to Joshua | 12 | LF | 8,500 | \$170 | \$1,500,000 |
| | Joshua - Orchard to S. Frontage | 12 | LF | 3,350 | \$170 | \$570,000 |
| | S. Frontage - Southland to Joshua | 12 | LF | 8,600 | \$170 | \$1,500,000 |
| 1 | Hutton - Joshua to Cuyama | 12 | LF | 6,300 | \$170 | \$1,100,000 |
| | Southland - Frontage to Orchard | 10 | LF | 3,900 | \$160 | \$630,000 |
| | | | | | Subtotal | \$12,000,000 |
| PRIOR | RITY 1 - ELIMINATING BOTTLENECKS - BLACK LAKE | | | | - united and | ,, |
| Part and the second second | Augusta Drive - extend 8" to future line in Pomeroy | 8 | LF | 20 | \$140 | \$2,800 |
| | | | | | Subtotal: | \$2,800 |
| PRIOR | RITY 1 - FIXED FLOW RATE SUPPLEMENTAL WATER SUPPLY EQ | UALIZATION STORAG | F | | Gabiotal. | Ψ2,000 |
| TRION | Tank Facility - 3MG | | LS | 1 | \$3,000,000 | \$3,000,000 |
| | | | LU | | Subtotal: | \$3,000,000 |
| DDIOE | RITY 2 - PROPOSED LOOPS | | | | Subiolai. | \$5,000,000 |
| PRIOR | Widow Lane / Twilight - extend 8" to loop dead-ends | 8 | LF | 1260 | \$140 | \$180,000 |
| | Tanis - extend 6" dead-end to Nellie | 8 | LF | 500 | \$140 | \$70,000 |
| | Spruce - extend 6" dead-end to Nellie | 8 | LF | 325 | \$140 | \$46,000 |
| | Bristlecone - extend 6" dead-end to Nellie | 8 | LF | 285 | \$140 | \$40,000 |
| | Terrace - extend 6" dead-end to Neille | 8 | LF | 1850 | \$140 | \$260,000 |
| | Souza - Terrace to Oak Glen | 8 | LF | 300 | \$140 | |
| | Glenhaven - San Ysidro to Amber | | LF | 820 | | \$42,000 |
| | | 8 | LF | | \$140 | \$120,000 |
| | Hunter Ridge - Pomeroy to Glenhaven | 8 s) 8 | LF | 1050 1050 | \$140 \$140 | \$150,000 |
| | Future Road - Glenhaven to Pomeroy (between Jennie and Ten Oak Future Road - Honey Grove to Drum | s) o 8 | LF | 650 | \$140 | \$150,000 |
| | Future Road - Horley Grove to Druffi | 0 | LF | 050 | | \$91,000 |
| | | | | | Subtotal | \$1,200,000 |
| | | | TOTAL COS | T TO MEET F | TUDE NEEDO | 647.000.000 |
| | | | IOTAL COS | TIOMEETE | JTURE NEEDS: | \$17,000,000 |
| | | | TOTA | 0007.05 // | | 601 000 000 |
| | | | TOTAL | COST OF IM | PROVEMENTS: | \$31,600,000 |
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