



5.0 Funding Plan

5.0 FUNDING PLAN

This section presents the funding plan options for the Plan Update. The purpose of these options is to identify a potential set of funding sources to adequately fund the capital improvements envisioned in the Plan Update and to fund ongoing costs of operations and maintenance. The drainage facilities recommended in this Plan Update are designed to mitigate for future new development based on General Plan build-out conditions of the various governmental jurisdictions comprising the Dry Creek watershed. As detailed in other sections of this Plan Update, the Antelope Creek at Atlantic Street project could, by itself, mitigate for expected future peak flow impacts at Vernon Street. Other projects are presented to provide options for the District in the event that all of the expected potential benefits from the Antelope Creek project turn out to not be achievable, or if the District decides to pursue projects to further reduce flooding or to mitigate for potential flow increases at locations other than Vernon Street. Additionally, the funding plan considers the existing balance of development impact fees that have been collected and the impacts that have occurred from 1992 through 2010 that have not yet been fully mitigated.

In addition to the regional drainage impacts addressed in this update, in many cases there will be a need for additional on-site drainage improvements for individual properties. Both the costs to correct pre-1992 existing deficiencies and to address on-site drainage improvements on individual properties are not included in this funding plan because these costs have not been quantified.

Due to the fact that the Dry Creek watershed overlaps several jurisdictions it is important that each jurisdiction contributes its fair share of funding for the necessary drainage improvements. Each jurisdiction's fair share includes collection of the regional development impact fees described in this section. Because the proposed projects do not mitigate for impacts from development downstream from Placer County, only the portion of Sacramento County in the Dry Creek watershed that is upstream from Placer County (portions of Orangevale along Linda Creek) is considered in the calculations of the potential fees.

5.1 FUNDING MECHANISMS UTILIZED TO DATE

Since the original flood control plan was prepared in 1992, drainage improvements in Dry Creek have been funded with a combination of government grants and development impact fees. As they are collected, one time fees on new development are held in the Dry Creek Trust Fund and continue to be a part of the current funding plan. Due to the uncertainty of both the availability and amount of government grants, the primary options in this funding plan do not assume any grant funding.



5.2 FUNDING TO MITIGATE IMPACTS FROM NEW DEVELOPMENT

This funding plan update is based upon the principle that new development is responsible for mitigating, as much as possible, the drainage impacts it creates. A summary of current and future peak flow increases (impacts) due to development is provided in Table 28.

Table 28: Summary of Current and Future Peak Flow Increases due to Development

Timeframe	Net Impacts at Vernon Street (cfs increase)	Comments
1992 – Current	273	Net remaining impact after including completed mitigation measures
Current – Build-out	627	Estimated future impacts due to development
1992 – Build-out	900	

Potential mitigation measures and their associated estimated costs are presented in Table 29.

Table 29: Potential Mitigation Measures Identified by the Dry Creek Plan Update

Plan Identified Mitigation Measure	Estimated CFS Reduction at Vernon Street	Cost	Cost/Benefit
Antelope Creek @ Atlantic Street	825	\$ 3,367,000	\$4,000 / CFS Reduction
Secret Ravine @ Secret College Blvd	175	\$ 3,234,000	\$18,000 / CFS Reduction
Linda Creek @ Old Auburn Road	28	\$ 932,000	\$33,000 / CFS Reduction
Linda Creek @ Wedgewood Drive	13	\$ 1,019,000	\$78,000 / CFS Reduction
Linda Creek @ Auburn-Folsom Road	12	\$ 1,008,000	\$84,000 / CFS Reduction
Low Impact Development	174	Developer Provided	Not Applicable
ALERT System Upgrades	Not Applicable	\$ 234,000	Not Applicable

Three options for the basis of a funding plan are provided with each consecutive option providing a slightly higher amount of peak flow mitigation at Vernon Street. Each option can be reasonably justified and the District can select which option they determine is most appropriate.



Option 1: Implementation of the Antelope Creek flood flow reduction project plus the ALERT system upgrades for an expected cost of \$3,601,000. This option provides an estimated 999 cfs of peak flow reduction and assumes low impact development (LID) measures are fully implemented.

Option 2: Implementation of the Antelope Creek and Secret Ravine flood flow reduction projects plus the ALERT system upgrades for an expected cost of \$6,835,000. This option provides a more conservative total amount of peak flow reduction as compared to Option 1, with up to 1,174 cfs of reduction at Vernon Street, including the benefit assumed from LID measures.

Option 3: Implementation of all five flood flow reduction projects plus the ALERT system upgrades for an expected cost of \$9,794,000. This option provides the largest amount of peak flow reduction of all three options at up to 1,227 cfs at Vernon Street, including the benefit assumed from LID measures.

Development impact fees are presented for each of these three options considering that the existing Dry Creek Trust fund balance will pay for a portion of the Antelope Creek project to mitigate for unmitigated impacts to-date.

As such, three primary funding plan options are provided based on an assumption that new development pays one time fees in a sufficient amount, once combined with current remaining fees in the Dry Creek Trust fund, to fund the costs of the option selected. A fourth funding plan option, Option 1A, is based on Option 1, but assumes costs are reduced by \$500,000, an amount of aid expected to be obtained from Proposition 84 grant funding specifically for the Antelope Creek flood flow reduction project. This Plan Update provides four alternative funding plan schedules of development fees (and two additional alternative schedules could also be calculated for Options 2 and 3 reduced by expected grant funding); the one selected by the District would replace the fee schedule that is currently in place in each of the jurisdictions of the Dry Creek watershed.

Currently, each of the jurisdictions in the watershed has its own set of development fees; and, those fees vary depending on the sub-basin in which the development is located. Each of the alternative updated funding plans is a uniform schedule of fees across all sub-basins in the watershed. The reason for this change is that the updated hydrology models indicate that it would be more appropriate for the costs of drainage facilities to be shared equally for properties throughout the watershed upstream from the point where Dry Creek crosses the Placer County and Sacramento County line. The potential projects were conceived using a watershed-wide approach and the potential benefits of the projects were also considered based on regional benefits, not only benefits local to the projects. Therefore, it would not be appropriate to have a variable allocation of the costs of the recommended drainage facilities among the various sub-basins in the Dry Creek watershed. Furthermore, a uniform fee schedule will provide for easier administration by the multiple jurisdictions.



Each jurisdiction currently collects a separate development fee for single family residential (defined as four dwelling units per acre and less), high density residential (greater than four dwelling units per acre), and commercial/industrial uses. The development fees vary for each of these land uses due to the relative drainage impacts, measured by impervious surface area, and adjusted for typical densities of development. Sacramento County has a fee schedule that is structured differently than the other jurisdictions.

On a preliminary basis, the development fees for the four options are listed in Table 30, and compared to the current fee.

Table 30: 2010 Development Fees and Development Fees for Three Options

Use Category	Current Development Fee ¹ (2010)	Option 1	Option 1A	Option 2	Option 3
Single Family Residential	\$224 to \$826/unit	\$174/unit	\$134/unit	\$430/unit	\$664/unit
High Density Residential	\$113 to \$231/unit	\$71/unit	\$55/unit	\$177/unit	\$274/unit
Commercial/Industrial	\$1,350 to \$2,763/acre	\$360/acre	\$278/acre	\$890/acre	\$1,374/acre

Note 1: 2010 fee schedule for all jurisdictions except Sacramento County. Sacramento County collects fees differently than the other jurisdictions.

These preliminary development fee estimates have been prepared consistent with AB 1600 (Government Code §66000 et. seq.) requirements based on the estimated impervious area applicable to each land use. A final set of development fees for the selected option will be fully documented by an AB 1600 nexus study, which will be completed before a new fee schedule is formally adopted.

One challenge of development fees as a source of funding is that they fluctuate over time – fee revenues are high when real estate conditions are strong and low when real estate conditions are weak, as is the case today. However, because the basis for collecting development fees is to mitigate impacts from new development, the variability of development fee revenues is not necessarily problematic for the funding of those drainage facilities mitigating new development impacts. In some cases, private development can provide up-front funding for regional drainage facilities if those facilities are required in order for a specific development project to proceed, such as a large subdivision. In these cases, the private developer might be eligible for future fee credits and/or reimbursements from other developments that benefit from these improvements. Fees can be adjusted over time based on the Engineering News Record Construction Cost Index to address future project cost increases.

5.3 FUNDING TO CORRECT EXISTING DEFICIENCIES AND O&M COSTS

The Plan Update determined that the mitigation to-date has not fully mitigated for impacts to-date and that existing deficiencies remain in the flood control system from pre-1992 Plan condition. Using the existing development fee balance to fund part of the Antelope Creek flood flow reduction project could essentially fully mitigate for the



impacts from 1992 to 2010 that have not been fully mitigated. The Plan Update concludes that non-structural flood control measures, such as the elevation and buy-out program, will be the most cost effective method to correct pre-1992 existing deficiencies. Elevation and buy-out programs are typically funded through federal or state grant programs that require local matching funds from the private property owner for up to 25 percent of the total cost. The number of private properties that may ultimately participate in an elevation and buy-out program is not known and, considering this and potential federal funding sources, the costs of such a program has not been quantified.

The District's costs for ongoing operations and maintenance (O&M) will increase as additional drainage facilities are built and as upgrades are made to the ALERT system. Current annual maintenance costs for the ALERT system and the Miners Ravine Off-Channel Detention Basin are approximately \$46,000 per year. Additionally, the estimated life cycle replacement cost for the Miners Ravine Off-Channel Detention Basin is \$32,000 per year, for total O&M and capital replacement costs of \$78,000 per year. Inclusion of the Antelope Creek flood flow reduction project and ALERT system upgrades would result in total O&M and capital replacement costs of \$174,000 per year (see Appendix L for further detail).

The funding mechanisms that are potentially available to the jurisdictions to fund the costs to correct existing deficiencies and ongoing O&M costs include the following:

- County Service Areas (CSA)
- Mello Roos Community Facilities Districts (CFD)
- Utility Fees
- Government Grants
- General Funds
- In-kind services from local jurisdictions

Since each jurisdiction in the Dry Creek watershed faces a unique set of local circumstances, the funding solutions that are utilized by one jurisdiction may not necessarily be ideal for another. For example, Mello Roos CFD financing is often utilized in large land development projects because in those projects land is typically controlled by a small number of property owners and, therefore, the voting requirements needed to adopt the district are more easily satisfied. Thus, jurisdictions that have the potential for large land development projects are more likely to be able to utilize CFD financing than those that do not.

The costs to fund ongoing O&M and life cycle replacement costs should be shared equitably among the jurisdictions that comprise the Dry Creek watershed. One approach to such an allocation is to spread the costs based on a proportionate share of impervious area. Table 31 presents two options for making the allocations. Option 1 is to base the allocation on the change in impervious area from 1992 to build-out, considering the time frame of the 1992 Plan and this Plan Update. Option 2 is to base the allocation on the total impervious area that is expected at build-out. Actual O&M



and life cycle costs would need to be adjusted over time as the projects are implemented. Table 32 lists the allocation of current O&M and facilities replacement costs (\$78,000 per year) based on the options presented in Table 31 and Table 33 similarly lists the allocation of O&M and facilities replacement costs with the implementation of the Antelope Creek flood flow reduction project and ALERT system upgrades (\$174,000 per year).

A final set of allocation options for O&M will be fully documented by the future AB 1600 nexus study described in Section 5.2.

Table 31: Basis for O&M Cost Allocation Options

Jurisdiction	Added Impervious Area 1992 to Build-out (sq. mi)	Option 1 Percent of Total	Impervious Area at Build-out (sq. mi)	Option 2 Percent of Total
Placer County	4.98	36	7.74	35
City of Roseville	4.78	28	6.94	32
Sacramento County	0.49	3	0.74	3
City of Rocklin	3.06	27	5.08	23
Town of Loomis	1.04	6	1.46	7
Total: Dry Creek Watershed	14.35	100	21.96	100

Table 32: Allocation Options for Current O&M and Capital Replacement Costs¹

Jurisdiction	Option 1 Allocation (%)	Option 1 Allocation (\$/yr)	Option 2 Allocation (%)	Option 2 Allocation (\$/yr)
Placer County	36	\$ 28,080	35	\$ 27,300
City of Roseville	28	\$ 21,840	32	\$ 24,960
Sacramento County	3	\$ 2,340	3	\$ 2,340
City of Rocklin	27	\$ 21,060	23	\$ 17,940
Town of Loomis	6	\$ 4,680	7	\$ 5,460
Total: Dry Creek Watershed	100	\$ 78,000	100	\$ 78,000

Note 1: Costs expressed in 2010 dollars.

Table 33: Allocation Options for O&M and Capital Replacement Costs after Completion of Antelope Creek Project and ALERT Upgrades

Jurisdiction	Option 1 Allocation (%)	Option 1 Allocation (\$/yr)	Option 2 Allocation (%)	Option 2 Allocation (\$/yr)
Placer County	36	\$ 62,640	35	\$ 60,900
City of Roseville	28	\$ 48,720	32	\$ 55,680
Sacramento County	3	\$ 5,220	3	\$ 5,220
City of Rocklin	27	\$ 46,980	23	\$ 40,020
Town of Loomis	6	\$ 10,440	7	\$ 12,180
Total: Dry Creek Watershed	100	\$174,000	100	\$174,000



5.4 IMPLEMENTATION ROLES

The District will continue to have responsibility for administering the flood control plan including planning, design, and construction of regional flood control facilities, and maintaining the hydrologic computer models. Each of the independent jurisdictions comprising the Dry Creek watershed will also play an important role in implementing the plan; each will be responsible for updating and collecting development fees consistent with this plan update so that the fee revenue will be adequate to construct drainage facilities as new development occurs. In addition, local solutions will be needed to fund the costs to correct existing deficiencies and ongoing operations and maintenance. As discussed, there are various funding mechanisms that could be utilized to fund these costs and the appropriate solution will depend on the particular circumstances facing each jurisdiction. As is always the case with regional drainage plans involving multiple jurisdictions, coordination and cooperation among the jurisdictions is essential to successful implementation of the plan.

