

Agenda Item 4b

| Water Conv | Alternative Name from | Description | Focus Area | Water Source(s) | Where to store the wa | Intended use(s) | Additional treatment require | Additional in | Outstanding issues | Mapping to CAs |
|------------|---|---|------------|--------------------------------------|-----------------------|--------------------------|------------------------------|---------------|--------------------|----------------|
| WCA-01 | Markowitz: Landscaping, Capture, Re-use | Use graywater for your landscape; minimize irrigation requirements; minimize lawns/design in patios. Rainwater to go into the house/building for domestic, non-potable use. | Demand | Decentralized (rainwater, graywater) | Rainwater catchments | irrigation (non-potable) | No | No | | CA-06 |
| WCA-02 | SCDA: Conservation Building Codes | Form a working group to consider building code revisions that include onsite water systems. These would go that go beyond the California Building Code, so that new buildings are highly water-efficient and can capture and re-use water onsite. The City can pass an ordinance requiring efficient fixtures in existing buildings. | Demand | Conservation (mandated) | NA | irrigation (non-potable) | No | No | | other |
| WCA-03 | SCDA: Water-Neutral Development | Implement a water demand offset program, where developers fund conservation retrofits elsewhere in the system to offset the new demand for water created by the development. The City needs to prevent growth from eroding our drought security by adopting a water---neutral growth policy in which developers fund conservation programs that aren't already funded by ratepayers. | Demand | Conservation (mandated) | NA | Potable or nonpotable | No | No | | CA-02 |
| WCA-04 | WaterSmart: Home Water Reports | The software organizes water use information to help engage customers, and allows customer-specific responses by staff. WaterSmart software analyzes billing data to disaggregate indoor and outdoor usage, lot size, home characteristics, location, the impact of weather and seasons, and any efficiency measures installed as part of a conservation program. Comparisons are made with other similar customers but no physical measures or incentives are delivered. | Demand | Conservation (voluntary) | NA | Potable or nonpotable | No | No | | CA-04 |

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| WCA-05 | Bevirt: North Coast Water | This alternative for initial comparison uses only the Liddell quarry which would hold about 650 million gallons (MG) since its construction would not require building a dam. The San Vicente site was dropped since the San Mateo Peninsula Open Space Trust and the Sempervirens Fund have acquired the site and initiated creation of a conservation easement over the site to prevent future development. If the City withdrew stored water over a 3-year drought cycle, production would be about 200 MG annually after allowing for evaporation and leakage losses. | Storage | Winter flows | New surface reservoirs | Potable or nonpotable | No | Pumping stations, Ranney collectors, pipeline | Water rights (new diversion location from which to fill the reservoir, routing of fill pipeline), geotechnical and construction issues associated with installing a liner on steep slopes over a porous karst formation, preparation and approval of environmental documents, California Department of Fish and Wildlife (CDFW) and National Marine Fisheries Service (NMFS) approvals for water diversions from streams with salmonoid populations, and agreements with the landowner about ownership and | CA-18 |

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| WCA-06 | McKinney: Expanded Treatment Capacity | This alternative for initial comparison would add a new 14-mgd water treatment plant (WTP) (pretreatment for turbidity control and membrane filtration) near the Tait Street Diversion to produce treated water that would be piped directly into the distribution system. The write up for this alternative indicates that the alternative would allow an annual water diversion increase of about 560 MG. | Supply | Winter flows | Loch Lomond, Other | Potable | Yes | Pumping station | determine the final treatment train (MF would need pretreatment ahead of MF for elevated SLR turbidity concentration), preparation and approval of environmental documents, determination if water rights and diversion permits would need modifications, and development of a plan to store and use diverted water beneficially. If the City would have excess water during normal or wet years, it might transfer extra water to Soquel Creek Water District (SqCWD) and/or Scotts Valley Water District (SVWD) but | CA-17 |

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| WCA-07 | McKinney: Ranney Collectors on SLR | Use Ranney collectors with a 12.9-mgd capacity (maximum capacity allowed under the current City of Santa Cruz [City] diversion permit), installed near the City's Felton diversion to draw water allocated under the City's existing water rights. Water drawn through the collectors would have greatly reduced turbidity. Much higher water quality would allow continuous refilling of Loch Lomond while also operating the GHWTP. More studies would be required to project increased diversion opportunity, however the increased diversion likely would be somewhat less than about 560 MG annually as projected for McKinney: Expanded Treatment Capacity | Supply | Winter flows | Loch Lomond, GW recharge, other | Potable | No | Ranney collectors | the City would need to conduct additional analyses for available flow, addressing any bypass requirements under the habitat conservation plan. The City would also need to determine its plan to store and use diverted water beneficially. If the City would have excess water during normal or wet years, the City might transfer extra water to Soquel Creek Water District (SqCWD) and/or Scotts Valley Water District (SVWD) but doing so would require agreements with the agencies and likely would trigger water rights permit modifications since the place of use | CA-19 |

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| WCA-08 | Paul: (13) The Lochquifer Alternatives | Use treated water sold by the City to Soquel Creek County Water District (SqCWD) during normal and wet years. SqCWD would use the transferred water either for groundwater recharge through seven 250-gallon-per-minute (gpm) recharge wells, for conjunctive use (well field resting) recharge, or both. The City would take more water from its San Lorenzo River and/or Newell Creek diversions, about 2.5 million gallons per day (mgd) or about 915 MG annually, to match the desalination alternative. If recharge occurred continuously for five years, total transferred water would be about 4,600 MG. Facilities would include Ranney collectors at the Felton Diversion, to insure that the Graham Hill Water Treatment Plant (GHWTP) could treat the diverted water continuously. During drought years the City would receive returned water (groundwater) from SqCWD. The City also would pump its Tait Street wells year round since the recharged Purisima aquifer would yield available water without causing seawater intrusion. Potential yield would be 2 | Supply | Winter flows | Loch Lomond, GW recharge, other | Potable | No | Pumping stations, Ranney collectors, pipeline | Water rights (modification of place of use), assembling appropriate information to site injection wells, modeling the Purisima aquifer to project better potential performance, and agreement with SqCWD on how the alternative's water would be conveyed, shared and paid for. | CA-16 |

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| WCA-09 | Ripley: Reuse for agriculture | produce filtered disinfected effluent (CA Title 22 unrestricted water) from the City Wastewater Treatment Plant (WWTP) at a rate of about 4.3 mgd. The City would pump the effluent north through a new pipeline aligned along the railroad right of way, with turnouts to irrigate up to about 1,300 acres on private land and leased land on properties owned by the California State Parks (CSP) and the United States Bureau of Land Management (BLM). This process is assumed to take place over 180 days per year and total water available for crop irrigation would be about 780 MG. The City would build 12 new 250-gpm extraction wells that discharge into new pipeline that in turn would connect to the existing City North Coast pipeline. The water would combine with diverted surface water from the City North Coast rights, for treatment at the GHWTP. To develop space for new facilities within the WWTP site, the City would need to relocate its Line Maintenance Facility from the WWTP site to a new site on the West Side. | Supply | Wastewater effluent/groundwater | Aquifer | irrigation (non-potable) | Yes | Line maintenance facility, delivery pipeline, extraction wells, return pipeline, storage reservoir | Legal agreements with CSP, BLM, and property owners and with irrigators, securing the right of way for the new delivery and return pipelines such as along the railroad ROW, geotechnical investigations for well construction, assessment of the groundwater basin to ensure that operation would not adversely affect the groundwater basin, permitting through the California Coastal Commission, preparation and approval of CEQA/NEPA documents (NEPA is included because the project includes BLM land), and location and purchase of new | CA-13 |
| WCA-10 | SCDA: Regional Aquifer Restoration | have the same components as "Paul Lochquifer" but the recharge and return rates would be lower. This alternative would transfer about 800 MG from the City to SqCWD over an extended period but SqCWD would return only about 145 MG to the City during dry years. The City's drought production from its Live Oak wells would increase from 1 mgd to 2 mgd, or about 365 MG. The long-term average approximate production increase appears to be $[(145+365)/6.5] = 78$ MG. | Supply | Winter flows | Loch Lomond, GW recharge, other | Exchanges with neighboring systems | No | Pumping stations, Ranney collectors, pipeline | water rights (modification of place of use), assembling appropriate information to site injection wells, modeling the Purisima aquifer to project better potential performance, and agreement with SqCWD on how the alternative's water would be conveyed, shared and paid for. | CA-16 |

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| WCA-11 | SCWD: Water Reuse | <p>Produce complete advance treatment (CAT) water from the City Wastewater Treatment Plant (WWTP) at a rate of about 3.7 mgd. The City would pump the CAT water from the WWTP through a new pipeline to the Bay street Reservoirs site where the new pipeline would connect to the existing North Coast pipeline. The combined water would flow to the inlet end of the GHWTP, to be treated and distributed to the City. This alternative would produce up to about 1350 MG annually. The City would have the option of selling surplus treated water to either SqCWD or Scotts Valley Water District as part of either a conjunctive use (aquifer resting) or ASR project.</p> <p>To develop space for new facilities within the WWTP site, the City would need to relocate its Line Maintenance Facility from the WWTP site to a new site on the West Side.</p> | Supply | Wastewater effluent | Loch Lomond, GW recharge, other | Potable | Yes | Pumping station, pipeline, relocated City Sewer line maintenance facility from WWTP to another site | permitting such reuse through CA Division of Drinking Water, gaining public acceptance for adding CAT water as part of its potable water supply, and possibly reaching agreements with adjacent agencies. | CA-11 |
| WCA-12 | SustainableWaterCoalition: Desalination | <p>Use seawater desalting through a new reverse osmosis desalination facility to produce about 2.5 mgd for addition to the City potable water supply. Annual production would be about 915 MG. This alternative's components and development would match those for the previously proposed scwd2 desalination facility. For comparison with other alternatives, BC has assumed that the City would own and operate the facility and would use the water produced year round. Excess water would allow the City to either idle the Live Oak wells for conjunctive use aquifer recover to perhaps undertake Live Oak well operation in an ASR mode to restore the aquifer more rapidly.</p> | Supply | Seawater | GW recharge, other | Potable | Yes | Marine intake and pipeline, onshore pumping station, desal facility, brine storage and brine disposal pipeline | Environmental document completion, permitting through the California Coastal Commission, and public vote approving alternative implementation. | CA-15 |

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| WCA-13 | Trevi: Forward Osmosis Desalination | Use seawater desalting through a Trevi forward osmosis (FO) system. This alternative's other components would match those for seawater desalting. | Supply | Seawater or recycled water | GW recharge, other | Potable | Yes | Offshore sea water intake, pipelines, and pumping station, Trevi process site, brine return pipeline | Trevi technology is still in its infancy and being tested at a pilot scale. As described, it would require a lower grade heat source for separately drawing the solution from the potable water but the alternative description did not designate a source for lower grade heat. | CA-14 |
| WCA-14 | Gratz: Regional Water Authority | Advance regional restructuring by bringing together contiguous water districts to facilitate a comprehensive vision and policy for groundwater planning, management, and resource conservation | Institutional /Administration | NA | NA | NA | NA | NA | | CA-20 |
| WCA-15 | Smallman: Regional Water Authority | a County-wide, regional District which would have a similar role as the Santa Clara Valley Water District, SCVWD, has with all water retailers in Santa Clara County. Just like SCVWD, this District would wholesale recycled water, manage ground water, water storage reservoirs, and recreational areas | Institutional /Administration | NA | NA | NA | NA | NA | | CA-20 |
| WCA-16 | Gratz: Maximize Conservation Behavior | Use the WaterSmart Software | Demand | Conservation (voluntary) | NA | Potable or nonpotable | No | No | | CA-04 |
| WCA-17 | Holt: Rate-Driven Conservation Behavior | Use rate increases to strengthen water wavings | Demand | Conservation (voluntary) | NA | Potable or nonpotable | No | No | | other |
| WCA-18 | McGilvray: (10) Regional Collaboration | Coordinate with Soquel Creek, Scotts Valley, and San Lorenzo Valley to address the water shortage issues in the region | Institutional /Administration | NA | NA | NA | NA | NA | | CA-20 |

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| WCA-19 | McGilvray: (11) Seawater Desal | Same as desal alternative | Supply | Seawater | GW recharge, other | Potable | Yes | Marine intake and pipeline, onshore pumping station, desal facility, brine storage and brine disposal pipeline | Environmental document completion, permitting through the California Coastal Commission, and public vote approving alternative implementation. | CA-07, CA-15 |
| WCA-20 | McGilvray: (9) Implement Conservation | Implement the Santa Cruz Master Conservation Plan | Demand | Conservation (voluntary) | NA | Potable or nonpotable | No | No | | CA-03 |
| WCA-21 | SCDA: Climate Appropriate Landscape | Proposes a number of recommendations, including promoting climate-appropriate landscaping, offering free graywater and rainwater evaluations, increase rebate incentives to convert lawns and shrub spray irrigation heads, price landscape water at Block 3 rates, use water budgets for all landscape accounts, and revise the water budget allotments | Demand | Decentralized (rainwater, graywater) | Rainwater catchments | irrigation (non-potable) | No | No | | CA-06 |
| WCA-22 | SCDA: Conservation Education | Educate and empower the citizenry to use water in way that works for the whole community, including the wildlife, thereby diminishing or eliminating the need for mandatory curtailment. Partner with schools and community organizations to do hands-on watershed restoration work and teach water conservation practices such as rainwater catchment, graywater recycling, climate-appropriate landscaping, and safe use of composting toilets. | Demand | Conservation (voluntary) | NA | Potable or nonpotable | No | No | | CA-03 |
| WCA-23 | SCDA: Conservation Pricing | Price water to encourage conservation | Demand | Conservation (voluntary) | NA | Potable or nonpotable | No | No | | other |
| WCA-24 | SCDA: Demand Management During Droughts | The City will establish a policy of timely demand management in response to dry conditions that will enable adequate storage for future dry years | Demand | Conservation (other) | NA | Potable or nonpotable | No | No | | other |

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| WCA-25 | Scott: Composting Toilets | Compost public toilets | Demand | Conservation (other) | NA | Nonpotable | No | No | | other |
| WCA-26 | Fieberling: Expand Storage | Build an off-stream storage reservoir located on state land north of the existing City landfill 3 miles west of the city | Storage | Winter flows | New surface reservoirs | Potable or nonpotable | No | | | CA-18 |
| WCA-27 | Malone: Enhanced Storage and Recharge | Use judicious measures to capture and manage excess San Lorenzo River runoff coupled with adequate storage. Storage options: 1) Enlarge storage capacity of Loch Lomond reservoir 2) Water swaps with neighboring water agencies 3) Groundwater recharge as storage 4) Use abandoned quarries 5) Build new dams, for example: Zayante Creek, Waterman Gap. | Storage | Winter flows | Loch Lomond, Other | Potable | | | | CA-17 |
| WCA-28 | Malone: Regional Water Exchanges | The City would help Soquel Creek recharge its aquifer to the point where, during extreme low rain years, Soquel Creek could ship some of its groundwater to Santa Cruz to help cope with a drought | Storage | Winter flows | Loch Lomond, GW recharge, other | | | | | CA-16 |
| WCA-29 | Malone: Stormwater Capture | Capture some of the excess runoff in these extremely high runoff years using a variety of smaller storage options | Storage | Stormwater | | | | | | CA-09 |
| WCA-30 | McGilvray: (2) Quarries for Water Storage | Use former quarries, such as Hansen Quarry, Eastern Cemex quarry, and/or Granite Sand Quarry at Dimeo dump for raw water storage. | Storage | Winter flows | New surface reservoirs | Potable or nonpotable | No | | | CA-18 |
| WCA-31 | McGilvray: (3) Water Capture and Transfers | Capture San Lorenzo winter flow, send to SV, SqCWD or storage | Storage | Winter flows | | | | | | CA-09 |
| WCA-32 | SCWD: Zayante Dam and Reservoir | Build a dam on Zayante Creek to create the Zyante Reservoir to store winter flows | Storage | Winter flows | New surface reservoirs | Potable or nonpotable | No | dam, pump station, pipe | | CA-18 |
| WCA-33 | Smallman: Reservoirs | As an alternative to the Zayante Dam, which would harm fish habitat, Smallman proposes to create four additional reservoirs. In some cases this involves building a different dam | Storage | Winter flows | New surface reservoirs | Potable or nonpotable | No | | | CA-18 |

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| WCA-34 | Smallman: Storm Aquarries | Remodel the existing Zayante Diversion Dam on the San Lorenzo River so that it collects mainly heavy storm water flows, rather than the lower flow, clear water as it does now | Storage | Winter flows | New surface reservoirs | Potable or nonpotable | No | Ranney collectors, pipe, dam, leach fields | | CA-18 |
| WCA-35 | Paul: (1-10,22) Foundation Strategies | Using a top-down, science-based, what does it take, and include the neighbors strategy for reviewing water supply and conservaiton alternatives. Consider water quantities, energy/elevation, costs, lifetimes, and regulatory buy-ins. | Strategies | NA | NA | NA | No | No | | other |
| WCA-36 | Aqueous: Desalination (non-membrane) | Build desal with a smaller footprint, less power demand, less capital, no pretreatment, no membranes, high raw water intake. The AQUEOUS System (AQ500K) is NOT a membrane based system, but a closed recycling thermal dynamic system using increasing pressure that reaches significant temperatures causing the molecular level separation of gas, liquids and solids via a multiphase process that is extraordinarily efficient. | Supply | Seawater | Aquifer storage if needed | Potable | ? | ? | | CA-07, CA-15 |
| WCA-37 | Brown: Zero-emission Wave Energy | Converts ocean wave energy into zero-emission electricity and desalinated water | Supply | Seawater | Aquifer storage if needed | Potable | ? | ? | | CA-07, CA-15 |
| WCA-38 | DewPoint: Atmospheric Water Generation | Dew Point's Water harvesting generators continuously simulate the "Dew Point" thus transforms the limitless water vapor in the air and condenses it into safe, clean water | Supply | Moist air | Storage likely not needed. | irrigation (non-potable) | No | Yes | | CA-08 |
| WCA-39 | Garges: Residential Gray-water | Reuse water from showers and bathtubs for sanitation and irrigation | Demand | Decentralized (rainwater, graywater) | NA | Nonpotable | No | No | | CA-05 |
| WCA-40 | Gratz: Recycled Water for Irrigation | use recycled water for irrigation | Supply | Recycled water/groundwater | Storage possibly not needed. | irrigation (non-potable) | Yes | Line maintenanc e facility, delivery pipeline, extraction wells, return pipeline, storage reservoir | | CA-13 |

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| WCA-41 | McGilvray: (1) Recycled Water for Irrigation | Use 30 MG of recycled water per year | Supply | Recycled water | Storage possibly not needed. | irrigation (non-potable) | Yes | Line maintenance facility, delivery pipeline, extraction wells, return pipeline, storage reservoir | | CA-13 |
| WCA-42 | McGilvray: (4,5) Upgrade Water Treatment | Add 2nd pipeline to Loch Lomond. Obtain permission to take water direct from Felton diversion. Use a better settling agent | Supply | Winter flows | Loch Lomond | Potable or nonpotable | Yes | | | CA-19 |
| WCA-43 | McGilvray: (6,7) Pipelines Along RR Line | Install on RR right of way Santa Cruz to Watsonville. | Supply | Recycled water | Ag irrigation and/or GW recharge | GW recharge | Yes | | | CA-13 |
| WCA-44 | McGilvray: (8) Tertriary Treatment, Re-use | Enlarge tertiary water treatment capacity at Neary Lagoon wastewater treatment plant | Supply | Recycled water | Groundwater | irrigation (non-potable) | Yes | Line maintenance facility, delivery pipeline, extraction wells, return pipeline, storage reservoir | | CA-10, CA-12 |

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| WCA-45 | McKinney: Additional Wells and WTPs | Develop new groundwater resources can diversify the City of Santa Cruz potable water supply. Wells located in the alluvium adjacent to the San Lorenzo River at the Felton Diversion, Coast Pump Station, and Tait Street well field can provide a reduced turbidity supply during periods of high runoff. Wells coupled with satellite water treatment plants in portions of the distribution system where water age affects water quality can increase supply modestly, reduce water waste, and improve quality. Sites for satellite production include the Branciforte service area, Carbonera Tank, Tanner Heights, Harvey West, University service infrastructure, Wilder Ranch, North Coast brackish sources, Lompico Formation on the North Coast, and the North Coast Recirculation Pump Station. | Supply | Groundwater | Groundwater | Potable or nonpotable | Yes | new satellite WTPs | | CA-13 |
| WCA-46 | McKinney: Water Reuse | Repurpose existing infrastructure to effectively deliver Reclaimed Water from the City of Santa Cruz's Wastewater Treatment Facility (SCWWTF) to augment the SLR. Several alternatives, including expanding reclaimed water filtration capacity at WWTP, building a new tertiary treatment plant off site a Coast Pump Station or Bay Street reservoir, or Build a Tertiary water main up Bay Street to the Bay Street Reservoir and tie into existing coast main or repurpose Scotts Valley WWTP effluent main for reclaimed water supply line. | Supply | Recycled water | | Stream augmentation, potable | Yes | Line maintenance facility, delivery pipeline, extraction wells, return pipeline, storage reservoir | | CA-11 |
| WCA-47 | Paul: (11) Multi-purpose Settling Ponds | Make use of our existing diversion facilities at Felton and/or Tait Street by using the multipurpose settling pond to remove turbidity. | Supply | Winter flows | GW recharge, other | GW recharge | No | Settling pond | | other |
| WCA-48 | Paul: (12) Diversion Alternatives | To capture turbid winter flows, use diversions such as ranney collectors, infiltration galleries, or casing path wells | Supply | Winter flows | Loch Lomond, GW recharge, other | | Yes | Possibly | | CA-19 |

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| WCA-49 | Paul: (14) Upgrade Water Intertie | Expand existing 6" SCWD/SqCWD intertie now by increasing pipe diameter to 18" for a short distance; get emergency or temporary permit; install a bi-directional variable-speed lowpressure inline pump to control water transfer capacity of at least 2000 AFY; capture an extra 300 to 500 AFY this winter. Re-apply for rights each winter during tide-over | Supply | Winter flows | | | | | | CA-16, CA-19 |
| WCA-50 | Paul: (15) Cross-County Pipeline | Cross-County Pipeline conveys <6000 AFY of raw water to Loch Lomond from some or all streams between the San Lorenzo River just above Boulder Creek and Soquel Creek, inclusive, and possibly Bear Creek and Aptos Creek. It includes diversions from some or all of said streams, and can augment any of the streams when needed for fish habitat. Diversion equipment would inherently filter out turbidity. The Pipeline would store winter water in Loch Lomond, then distribute Loch water throughout the year to the participating aquifer-dependent water districts, who in turn can rest their wells to recharge aquifers very quickly. A new water treatment plant would be built in the vicinity of the Loch or Scotts Valley to serve participating water districts primarily by gravity, possibly generating hydroelectricity in the process | Supply | Winter flows | Loch Lomond, GW recharge, other | Stream augmentation, potable | No | New WTP, pipeline, Ranney Collectors (or other diversions) | | other |
| WCA-51 | Paul: (16) Water Looping | pumping water from the bottom of the range to the top of the range to significantly enhance the stream flow in that range of the stream for a few weeks out of the year | Supply | | | Stream augmentation | No | pipeline | | other |
| WCA-52 | Paul: (17) Detention Tub String | Construct a detention tub string to hold reclaimed water long enough so that it can be treated as potable | Supply | Recycled water | detention tub | Potable | | | | CA-12 |

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| WCA-57 | Paul: (23) Loch-Down Alternatives | Divert winter water using equipment which would substantially de-turbidify the water by making it filter down through stream beds. The water would come from streams at elevations comparable to or higher than those of Loch Lomond Reservoir, for the reasons stated in the previous paragraph. A new 8 mgd treatment plant near the Loch would insure that when the diverted water is added to the Loch, it meets excellent quality standards. Throughout the year, the new treatment plant would also treat Loch water on its way down to participating agencies, which would shut off their wells and thus let their aquifers recharge very quickly. The name "Loch-Down" originates from how it features water flowing downhill, generating hydroelectricity--instead of consuming energy required to pump uphill, as is done currently from Felton to the Loch. Larger diversions can be achieved without enlarging the treatment plant, but merely by adding a simple buffer pond and/or some pipeline | Supply | Winter flows | | | Yes | | | CA-19 |
| WCA-58 | Paul: (24) Cowell Railroad Pipeline | Construct a pipeline through Henry Cowell State Park along the existing railroad right-of-way, and install a subsurface diversion device such as a Ranney collector at Felton to filter out turbidity, increase capacity and save energy | Supply | Winter flows | | | Yes | Pipeline, Ranney collector | | other |
| WCA-59 | SCDA: Enhance Existing Infrastructure | City conduct an evaluation of the cost, benefit, feasibility and environmental impact of the following: aquifer recharge with potable water, aquifer recharge on North Coast, adding new treatment facility (possibly at Bay St. Reservoir), wells to tap Santa Margarita Aquifer in Live Oak area, relocate the main San Lorenzo River diversion upstream, accelerate the replacement of old pipes in the distribution system | Supply | Winter flows | | | ? | ? | | CA-16 |

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| WCA-60 | SCDA: Watershed Restoration | City should conduct a cost/benefit analysis of funding stormwater infiltration projects in groundwater recharge zones City convene a joint effort with Scotts Valley Water District and San Lorenzo Valley Water District to contract with the California Conservation Corps to engage in watershed restoration, including restoration of roads; storm water infiltration projects; and partnering with schools and community groups to do restoration | Supply | Stormwater | | | | | | CA-09 |
| WCA-61 | Smallman: Conservation Savings Accounts | Set up conservation savings accounts for water customers to increase the incentive for them to install water saving improvements. This account will accrue money from a percentage of the billing. The water agency shall also apply for grants for this program to help build these accounts | Demand | | | | | | | other |
| WCA-62 | Smallman: Recycled Water | Build and Advanced Treated Recycled Water Treatment Plant at the corner of Delaware Avenue and Natural Bridges Drive | Supply | Wastewater effluent | | potable or nonpotable | Yes | Treatment plant, pipeline, transmission mains, injection wells | | CA-10, CA-12 |
| WCA-63 | Smallman: Water Skate Parks | This alternative is similar to the "Storm Aquarry Plan", but treats the water immediately to a potable degree, rather storing partially treated water into reservoirs. the potable water would be injected directly into the distribution system, or go to storage facilities replacing water that is normally drafted from the ground water basin | Supply | Stormwater | | | | | | CA-09 |
| WCA-64 | Weisz: Water recycling | Treat wastewater effluent to potable drinking standards | Supply | Recycled water | | Potable or nonpotable | Yes | Yes | | CA-10, CA-11, CA-12, CA-13 |
| WCA-65 | zNano: Conservation rebate program | Offer a rebate for water efficient technologies and retrofit (WET&R) projects using 3 years of public financing | Demand | Conservation (voluntary) | NA | Potable or nonpotable | No | No | | CA-03 |

| Water Conv | Alternative Name fr | Description | Focus Area | Water Source(s) | Where to store the wa | Intended use(s) | Additional treatment require | Additional ir | Outstanding issues | Mapping to CAs |
|------------|---|--|------------|--------------------------------------|-----------------------|-----------------------|------------------------------|---------------|--------------------|----------------|
| WCA-66 | zNano: On-site Water Re-use | Through rebates, encourage homeowners or businesses to install zNano water treatment appliances to reuse water in the home or business. These appliances help recover waste water | Demand | Decentralized (rainwater, graywater) | NA | nonpotable | No | No | | CA-05 |
| WCA-67 | Tanaka: Storage; energy-efficient desal | Convert waste plastic into fuel to provide an energy source for desal | | | | | | | | CA-07, CA-15 |
| WCA-68 | Program C from the long term conservation master plan | Program C is defined in Table 4 of the MWM TM dated 9/30/2014. It includes a side variety of water conservation/efficiency measures, some mandated, some incentivized through rebates and some using public and customer outreach and/or communication to encouraged changed behavior. | Demand | Conservation (voluntary) | NA | Potable or nonpotable | No | No | | CA-03 |
| WCA-69 | SCWD: Peak season reductions – 10%, 25% and 50% | Develop programs to decrease peak season demands through peak reduction or peak-demand shifting | Demand | Conservation (mandated/voluntary) | NA | Potable or nonpotable | No | No | | CA-01 |
| WCA-70 | Home Water Recycling | Use commercially produced recycling systems in new residential construction and possibly retrofitted into existing residential units. The units would treated gray water to supply treated for toilet flushing and dry season landscape irrigation. Installation could include single family, condo, and multi-family units. | Demand | Decentralized (rainwater, graywater) | NA | Nonpotable | No | No | | CA-05 |