

2016 Project List
Greater Monterey County Integrated Regional Water Management Plan
Implementation Projects

| Project Applicant | Project Title | Project Summary | Requested Amount | Matching Funds | Total |
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| California State Parks | Big Sur River Steelhead Enhancement Project | The Big Sur River provides spawning and rearing habitat for the federally threatened South-Central California Steelhead (<i>Onchorhynchus mykiss</i>). Six and a half of the 8½ miles (75%) of the river that are passable to steelhead are within Andrew Molera State Park (AMSP) and Pfeiffer Big Sur State Park (PBSSP). For this reason, California State Parks authorized development of the Big Sur River Steelhead Enhancement Plan, which was completed in 2003. The project is made up of the following components: A) Constructing a clear-span bridge to replace an existing double squashed culvert crossing at Post Creek in PBSSP campground. Permitting and design has already been funded. B) Conducting riparian re-vegetation, exclusionary fencing and bank stabilization in degraded riverside campsites and the day use picnic area within PBSSP. C) Relocation of a portion of the Beach Trail in AMSP away from the river. D) Installation of steelhead lifecycle and regulation interpretive displays. E) Removal of invasive, non-native plant species and re-vegetation with natives along the riparian corridor in AMSP. | \$400,738 | | \$400,738 |
| Central Coast Wetlands Group | Coastal Wetland Erosion Control and Dune Restoration | The proposed project will enhance and restore wetland and sand dune ecosystems in central Monterey Bay, and control erosion in salt marshes directly behind the dunes around Moss Landing. These marshes are critical buffers to prevent salt water from entering surrounding farmland, especially the Salinas Valley, yet they are eroding away at accelerating rates. Sand dunes help retain fresh water at the coast, recharge groundwater, retard saltwater intrusion, and minimize storm damage from the sea. Currently much of the physical dune structure around Monterey Bay is fairly intact, but is also highly degraded with invasive non-native plants, which continue to spread. Monterey Bay is the largest indentation widely open to the sea on the Pacific Coast of the U.S., with correspondingly large and ecologically important dune systems, and is the core area of the Monterey Bay National Marine Sanctuary. The target area for this project, the central Monterey Bay, has the lowest and most degraded sand dunes in the region. They will be the first to fail as sea level rises from storms, El Nino cycles, and climate change. Should they fail, salt water will overflow into the Salinas Valley, compromising one of the nation's most productive agricultural centers. | \$1,070,164 | \$356,721 | \$1,426,885 |
| Central Coast Wetlands Group | Development and Evaluation of Climate Change Response Strategies in the | This project implements key steps in climate change planning outlined by the DWR 2011 Climate Change Handbook for Regional Water Planning. This project will further and more accurately investigate regional climate change impacts and seeks to recommend adaptation response strategies (a priority action defined within the TAC-driven climate adaptation chapter of the Greater Monterey | \$392,300 | \$106,450 | \$498,750 |

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| | Elkhorn Slough, Gabilan and Salinas River Watersheds | County IRWMP) to address the impacts of sea level rise, storm surge, coastal inundation and coastal erosion for the Elkhorn Slough, Gabilan, and Salinas River Watersheds. The first phase of the project focuses on collecting and compiling data to further evaluate coastal inundation threats and responses in these watersheds. This data includes an inventory of water control structures that manage current flood control conveyance and topographic data using Light Detection and Ranging technology (LiDAR). The second phase of this project focuses on creating a climate change adaptation and response strategy plan followed by an economic evaluation of these different strategies. The outcome of this project will be a comprehensive report recommending feasible and long-term adaptation and response strategies to climate change impacts, necessary to prepare for future threats rather than respond to emergencies. This project will help support the climate change planning efforts of multiple stakeholders in the Greater Monterey County IRWM region. | | | |
| Central Coast Wetlands Group | Ecosystem Condition Profile for the Lower Salinas River Watershed using the Level 1-2-3 Framework | The goal of this project is to provide cost-effective, scientifically-based, and integrated information on stream ecosystem condition in the Salinas watershed to inform management decisions and optimize ecological monitoring activities. To address this goal, the EPA's 1-2-3 Framework will be selected and tailored to the region's interests. The 1-2-3 part of the Framework relates to three different levels of data collection that address different types of resource management questions. <i>Landscape Assessments (Level 1)</i> are inventories of streams in a watershed. They generate a base map of the extent and distribution of stream ecosystems in each watershed and help determine what role the organizations can take to maintain or improve stream conditions. <i>Rapid Assessments (Level 2)</i> evaluate the overall, or ambient, condition of riverine wetlands inexpensively and in a comparatively short time frame. <i>Intensive Assessments (Level 3)</i> provide finer resolution field data to evaluate the performance of mitigation sites, establish baseline conditions, and help to understand the cause of declines in habitat conditions. The information at the three levels will be synthesized into an integrated report of stream condition, referred to as Stream Ecosystem Condition Profile, within the main stem of the Salinas River and in two smaller sub-watersheds watershed. Profiles also identify the stressors affecting condition, risks and consequences of unmitigated stressors, and recommended actions to maintain or improve condition. Because the a majority of the land ownership or control over streams relative to the vast drainage network in each watershed is in private hands, the assessments help to clarify what role public agencies and regional organizations can take to protect stream condition and how to engage others through partnership or advocacy to help implement solutions. | \$517,875 | \$172,625 | \$690,500 |
| Central Coast Wetlands Group | Expansion of a Coastal Confluence Water Monitoring | We anticipate that the cumulative results of regional water quality enhancement efforts will lead to improvements in water quality of receiving waters. We currently do not have the robust monitoring systems in place to successfully document these improvements. This project aims to expand the coverage of the | \$599,130 | \$216,153 | \$815,283 |

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| | System to support the Greater Monterey IRWMP | continuous monitoring LOBO (Land/Ocean Biogeochemical Observatory) buoy monitoring array from the current location at the end of the Gabilan/Old Salinas River Channel (and several within the Elkhorn receiving waters) to the two additional priority coastal confluence locations that drain significant portions of the Salinas Valley (the Moro Cojo Slough and Salinas River mouth). Additional less costly nutrient monitoring equipment will be installed at the confluence of multiple sub-drainages in order to further document the cumulative effects of nutrient management strategies within the sub-drainages of each watershed. Funds will support the construction of a new LOBO buoy for the Salinas River and the refurbishment of a buoy currently being used within the Elkhorn Slough which will be redeployed within the Moro Cojo Slough. Funds will also support three years of half-time staff and student support for the LOBO system including one station currently deployed within the Elkhorn Slough. This will document the enhancement of water quality within receiving waters due to watershed management practices. | | | |
| Central Coast Wetlands Group | Implementation of the Moro Cojo Slough Management and Enhancement Plan: Restoration of the Upper Slough | This project will continue to address the goals of the Moro Cojo Slough Management and Enhancement Plan, the Northern Salinas Valley Watershed Restoration Plan, and the Central Coast Regional Toxic Hot Spot Cleanup Plan for Moss Landing Harbor. This project will involve the restoration of 120-acres of the Moro Cojo Slough containing tidal and brackish water marsh (a state marine reserve) that receive fresh water inputs from agricultural lands above. This project will restore the hydrologic connectivity of the upper, middle, and lower reaches of the Moro Cojo Slough by linking multiple marsh areas with new lands previously lost to agriculture. The project will reestablish an interconnected brackish water wetland ecosystem. This effort addresses a critical action defined within the Moro Cojo Management Plan that until now has been left incomplete. Because of new interest by farmers to provide access to restorable marsh lands we are able to move forward to implement this key action outlined in the Management Plan. The result of this project will be to reestablish hydrologic connectivity and ecosystem function, enhance wildlife habitat, reestablish wetland habitat that supports endangered species (brackish water snail and tidewater goby), and improve water quality flowing out of the watershed into several State marine reserves and the Monterey Bay National Marine Sanctuary. This will be a four year project with three major outcomes: 1) protection of wetland marsh and adjacent upland habitats through easement or acquisition, 2) filtration of agricultural runoff with sediment basins and treatment wetlands prior to water entering the main slough 3) restoration of the main slough to increase open water habitat and overall system complexity, and 4) regain wetland habitat continuity between the three main sections of the Moro Cojo Slough. | \$1,450,636 | \$483,545 | \$1,934,181 |
| Central Coast Wetlands Group | Northern Gabilan Mountain Watershed | The project consists of three phases to restore a sub-watershed within the upper Gabilan watershed, and serve as a model for restoration of watersheds within the central coast. Phase I provides the foundational watershed characterization and | \$841,961 | \$280,654 | \$1,122,615 |

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| | Management Project | process analysis necessary to develop meaningful and effective watershed management. It includes a review of previous relevant studies and preparation of original analysis along with a compilation of spatial data and key watershed processes. Analysis will be integrated with research and planning projects done by others. The synthesis of this information will be used to target planning and restoration for one sub-watershed. This will be accomplished by addressing the changes in the watershed functions and processes (physical, chemical and biological) that are caused by agriculture and urban activity that affect watershed health. Additionally, we will conduct a community-based engagement process to review Phase I information and watershed management options. Phase I will result in a management methodology and a master restoration plan for one of three sub-watersheds. Phase II will develop site design for prioritized restoration locations within the chosen sub-watershed and Phase III will implement those designs. | | | |
| Central Coast Wetlands Group | Study of environmental services from nutrient reducing BMPs | The SWRCB, CCC, and other State agencies have identified management measures (MMs) to address agricultural nonpoint sources of pollution that affect State waters. The agricultural MMs include practices and plans installed under various programs in California, called Best Management Practices (BMPs). These BMPs range in action from on-farm nutrient management to cover crops to constructed treatment wetlands. To be effective, BMPs should be targeted by location and type; however, we currently lack the information necessary for precise targeting. This project is intended to fill existing economic and ecological gaps in knowledge about select nutrient load reducing BMPs, supporting current conservation programs, and to explore innovative Payment for Environmental Services (PES) potential. Tasks include an ecosystem service assessment to identify the location and size of existing nutrient reducing BMPs; nutrient reduction research to address gaps in the understanding of the effectiveness of selected BMPs at load reduction; ecosystem service valuation to economically assess the multiple benefits of BMPs; and an ecosystem services analysis to determine if PES is feasible. The results of the project will be beneficial to many different users. In particular, the ecosystem service valuation will have widespread utility in cost benefit assessments of environmental projects, and the load reduction study will help farmers, conservation groups and regulators. | \$372,000 | \$124,000 | \$496,000 |
| Central Coast Wetlands Group | Water quality enhancement of the Tembladero Slough Phase II | This project is Phase II of <i>Water quality enhancement of the Tembladero Slough and Coastal Access for the Community of Castroville</i> , Phase I of which has been funded by the IRWMP Round 1. During Phase I, CCWG will work with County agencies, agricultural landowners and the community of Castroville for design and permitting of a select set of Water Quality/wetland management structures. These projects will utilize a variety of water quality management innovations including the treatment train approach (i.e. detention/sedimentation features, pollutant filtration/ biological degradation of pollutants and water polishing areas). During Phase II of this project, twenty acres in total (approximately six projects) will be | \$727,650 | \$242,550 | \$970,200 |

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| | | constructed based on the plans from Phase I that support and integrate the multiple objectives of the Greater Monterey County IRWMP, emphasizing urban and agricultural water quality enhancement, flood management, habitat restoration and support of various watershed planning and permit processes. Features are selected based on available space, hydrologic requirements, and adjacent landowner concerns, but preferentially support projects that enhance habitat and open space features as well as improving water quality. | | | |
| City of Salinas and Big Sur Land Trust | Carr Lake Riparian Habitat Restoration Plan | The Carr Lake Project is an effort to turn the agricultural area into a multi-use facility that will provide much needed open space and recreational facilities, as well as providing benefits such as improved peak flood control and water quality, and restoring wetland habitat areas. The City of Salinas is working with the Big Sur Land Trust (BSLT) to acquire properties in the Carr Lake Area. BSLT will be acquiring 73 acres (the Ikeda property) of the 480 acres that comprise Carr Lake by 12/31/16. This project would begin the planning process working collaboratively to plan for/design the restoration of wetlands and stream beds that will greatly improve the water treatment capacity of this site. This project would also design public access for the residents of Salinas who are vastly underserved by open space and park lands. It is expected that this initial planning process will also look towards future acquisition of the remaining farmlands to consider how they may also be used to transform drainage ditches to convey and treat storm water. | \$250,000 | \$250,000 | \$500,000 |
| City of Salinas | Integrated Industrial Wastewater Conveyance and Treatment Facility Improvements | This project will include new gravity sewers with capacity to collect more of the City's industrial wastewater and convey it to the IWTF, upgrades to the IWTF to treat increased industrial flows (expanded electrical system and aeration treatment and related upgrades), and a system to filter the IWTF effluent through soil at the IWTF. After extraction the water would be available for reuse. New monitoring points around the soil bed filtration system will monitor system efficiency and assess its performance and success, such as producing high quality water with low suspended solids. The City has identified multiple potential beneficial uses for treated water including the following: 1) Encourages ground water re-charge. 2) Combats saltwater intrusion. 3) Transfer to the Monterey Regional Water Pollution Control Agency for high quality diluent in its groundwater recharge project. 4) Use as low-salt feed water for potential upgrade to potable water for the City of Salinas. 5) Use after some desalting for agricultural irrigation or without desalting for non-agricultural irrigation water (golf course, playing fields, etc.). 6) Discharge to the Salinas River for reuse by others when withdrawn at the inflatable dam. The potential quantity of water now exceeds about 2,500 acre feet annually and could increase to several times that amount as the IWS grows. The water quality would be substantially improved since the effluent had filtered through the soil column, removing algae and other suspended solids and some trace constituents. For the IWS, such withdrawal would enhance both disposal pond and the percolation bed percolation rate, effectively increase effluent | \$10,720,000 | \$7,190,000 | \$17,910,000 |

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| | | disposal capacity, and hence, treatment capacity. | | | |
| City of Salinas and Monterey Regional Water Pollution Control Agency | City of Salinas/MRWPCA Stormwater Diversion Implementation and Water Supply | This project focuses on stormwater management and water reclamation/water supply. The project will divert dry weather urban surface water discharge from south Salinas into the City's Blanco Detention Basin. Water from the Detention Basin will then be sent to the MRWPCA regional wastewater treatment plant. Once reclaimed, diverted water could be used for dry-season water supply (e.g., as agricultural irrigation water). In parallel, wet weather and dry weather surface water runoff from the City's northern neighborhoods will be similarly diverted for reuse. Surface water runoff that currently flows into the Reclamation Ditch will be diverted and reclaimed. After treatment, MRWPCA will direct the recycled water to where it will mitigate seawater intrusion and provide additional water for agriculture in the northern Salinas River valley as part of the Castroville Seawater Intrusion Project (CSIP). This project will reduce pollution to downstream receiving waters, and potentially add to recycled water supplies. | \$730,000 | \$366,000 | \$1,096,000 |
| City of Soledad | Soledad Regional Recharge Project | The first of two projects, Community Enhancement and New Open Space will re-purpose an existing storm water basin to community open space and re-route upstream runoff to a larger downstream infiltration facility to increase groundwater recharge and reduce flood hazard. This project will improve flood management in a neighborhood prone to flooding. The other project, Storm Water Diversion, will construct a diversion facility to direct the first one-inch of rainfall to the city's Reclamation Facility. The runoff will be treated to Title 22 standards and act as a source for the city's reclaimed water system. | \$6,750,000 | \$750,000 | \$7,500,000 |
| City of Soledad | Water Recycling/Reclamation Distribution System | "The proposed project will be for the design and construction of a Title 22 Wastewater Effluent Reuse distribution system to irrigate city parks and school district properties in the city and agriculture adjacent to the city to offset potable water use. The entire water recycling/reclamation project consist of the following phases: <ul style="list-style-type: none"> • Phase I – design and construction of the WWTP 5.5 MGD water reclamation facility that is producing Title 22 wastewater reuse water at the effluent. • Phase II – design and construction of Title 22 wastewater effluent reuse water pump station and transmission pipeline. • Phase III – design and construction of wastewater effluent reuse water distribution system. • Phase IV – Transmission pipeline to CDCR facilities within the city limits. The City of Soledad, surrounding farms and neighboring communities of Gonzales and Greenfield will be included in feasibility studies for delivery of wastewater from the neighboring communities for treatment at the City of Soledad Water Reclamation facility for subsequent delivery of the recycle water produced to its end uses. Soledad completed Phase I of the project in 2008. Phase II is currently underway and will be completed by fall 2016. The project being proposed is for Phase III. The project will include the design and construction of a distribution system that will connect to the Phase II main transmission line and | \$1,674,216 | \$312,984 | \$1,987,200 |

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| | | irrigate 31 acres of City parks, City open space lands, and an equal amount of Soledad Unified School District properties. The combined City and Soledad School District will not use the entire supply of reclaimed water. Soledad will offer for market value the surplus reclaimed water to adjacent agricultural lands, which may include building additional delivery points. All of the above uses will offset potable water uses. | | | |
| Ecology Action | Drought Response: Achieving water demand reduction and LID BMP implementation through expanded incentive programs | To address overdraft in groundwater basins and oversubscription of surface water supplies in the Greater Monterey County region, a watershed-wide approach to water demand reduction will be implemented that provides enhanced incentives and assistance to accelerate water conservation and LID BMP retrofits. The project will target high priority commercial sites and expand residential direct install/rebate programs beyond water district boundaries. For key BMP rebates that are not provided by water suppliers, this program will provide a drought specific rebate within service areas. As a first step, top commercial water users in the area are identified and offered a consistent and enhanced commercial direct install retrofit incentive program. As a second priority to commercial retrofits, residential sites outside water district areas within overdrafted aquifers will be offered rebate programs consistent with current local rebate programs. Where possible the project will leverage LID opportunities. | \$750,000 | \$200,000 | \$950,000 |
| Ecology Action | Monterey Bay Green Gardener Training & Certification Program/ Monterey Bay Friendly Landscaping Program | The Monterey Bay Green Gardener Certification Program provides bilingual, hands-on training in ecological landscaping methods for landscaping industry professionals, public agency landscape maintenance staff, and home gardeners. Green Gardener graduates are trained to be watershed stewards who are actively reducing landscape water demand and preventing urban non-point source pollution. In partnership with California Water Service Company, the Mission Trails Regional Occupation Program, and Hartnell College Center for Sustainable Construction, the project would: 1) Expand Green Gardener training beyond the Gabilan watershed and City of Salinas to the communities of Gonzales, Soledad, and King City. 2) Incorporate hands-on training experiences at water-wise demonstration sites on both public and private properties. In addition, property owners will be offered additional financial incentives (over local rebates) to implement Monterey Bay Friendly Landscaping practices. This program provides public recognition and financial incentives for property owners, property managers, and landscape contractors who implement ten required ecological landscape practices and an ecological landscape maintenance agreement. Practices include, e.g., turf replacement with climate appropriate landscaping, rainwater harvesting, run-off redirection to LID features, and impervious surface removal. The project aims to provide rebates for, certify and publicly recognize 20 commercial landscapes, 20 civic landscapes, and 20 residential landscapes for achieving Monterey Bay Friendly Landscaping Certification. | \$178,975 | \$47,685 | \$226,660 |
| Elkhorn Slough Foundation & | Ridgeline to Tideline: Water | Ridgeline to Tideline is a comprehensive approach to addressing water resource issues in an estuarine watershed. The project area encompasses 427 acres of | \$6,178,438 | \$2,050,694 | \$8,229,132 |

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| ESNERR | Resource Conservation in Elkhorn Slough | Elkhorn Slough and uplands set in a 4,000-acre block of protected lands. The three phases of this work include: 1) increasing tidal range and circulation in part of the Slough with consistently poor water quality and greatly reduced estuarine function, coupled with restoration of an adjacent upland buffer, 2) acquiring two adjacent farmland properties that are chronic sources of Slough degradation, and 3) re-contouring and stabilizing their steep eroding slopes and restoring native vegetation. Reduced groundwater extraction on these lands will improve water balance in the basin, resist seawater intrusion, prevent nitrate pollution and promote freshwater spring re emergence. Over the past three decades we have demonstrated these integrated actions can measurably improve ecological function, tidal, freshwater and groundwater quantity and quality, and provide habitat for a diverse array of plants and animals. We have demonstrated a statistically significant drop in nitrate in receiving waters subsequent to restoration of similar lands, which techniques we will apply to this work. That this work can accomplish these goals is of utmost importance to the local community. | | | |
| Marina Coast Water District | Recycled Water Element of the Regional Urban Water Augmentation Project (RUWAP) | RUWAP is the urban water augmentation project developed by MCWD in cooperation with Fort Ord Reuse Authority (FORA). The Recycled Water element of RUWAP consists of the back-bone facilities needed for a recycled water distribution system that will provide up to 3,000 AFY of recycled water to urban users in the MCWD service areas, specifically including the former Fort Ord, and potentially the Monterey Peninsula. The Recycled Water element of RUWAP includes the following specific features: 1) A connection to the Salinas Valley Reclamation Project that includes a pump station referred to as the Water Augmentation Pumping Plant (WAPP). 2) A new distribution pipeline system consisting of approx 40,000-LF of ductile iron and plastic pipe installed within existing roadway right-of-ways and easements. The pipeline will vary in diameter from 20-inches to 16-inches. Thousands of linear feet of Recycled Water conveyance pipelines have already been installed throughout the community, in particular a small section of back-bone facility within CSUMB and an approximately 3-mile extension of the back-bone facility southerly down General Jim Moore Boulevard. 3) One intermediate pump station referred to as the Fifth Avenue Pump Station (FAPS) located in the City of Marina near CSUMB. 4) One storage tank referred to as the Blackhorse Reservoir will provide more than 1.5-million-gallons of operational storage. The Blackhorse Reservoir will be located at an existing MCWD storage tank site just east of General Jim Moore Boulevard. 5) The installation of a variety of appurtenant features. | TBD | TBD | TBD |
| Monterey Bay Sanctuary Foundation | Making Monitoring Count | This project is necessary to document the IRWMP efforts and their effectiveness throughout the Greater Monterey County region. This project will implement the tracking system developed to inventory projects designed to address the goals of improved water quality, water supply, flood control and environmental protection outlined in the IRWMP. The Monterey Bay National Marine Sanctuary's Synthesis, Analysis and Management (SAM) program initiated this effort in 2006 | \$324,000 | \$81,000 | \$405,000 |

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| | | by conducting an initial compilation and assessment of water quality data collected on the Central Coast. This effort led to the development of the <i>Strategic Plan for Central Coast Water Quality Monitoring Coordination and Data Synthesis</i> . This project will further the tasks described in that plan by developing a framework for improving regional capacity to coordinate monitoring, synthesize information, communicate more effectively between key groups, understand environmental changes, and respond to changes and new knowledge with adaptive management. Water quality data have historically been stored in disparate formats at diffuse locations throughout the region, making them difficult to use collectively. Combining this with tools developed in the Tahoe Basin to measure effectiveness of practices and load reductions will be extremely valuable to the IRWM process | | | |
| Monterey County Redevelopment & Housing Office | Well Replacement and Pipeline - San Lucas Water District | The community of San Lucas is an impoverished, predominately Hispanic, farmworker village. The San Lucas Water District operates the community's drinking water and wastewater systems, and has approximately 90 service connections. The District's water supply is derived from a single groundwater well located in the center of an agricultural field. Since March 2011 all customers of the Water District have been on an indefinite "Do Not Drink" order from the Monterey County Division of Environmental Health (DEH) due to excessive levels of nitrates in water being pumped from the District's single well. The DEH has directed the Water District to implement a new source of water that meets all public water quality requirements as soon as possible. In addition, the RWQCB has been unable to certify approval of the District's recently upgraded wastewater treatment and disposal system due to high TDS in the treated effluent, which is a direct result of high TDS in the community's water source. As a result, the District cannot approve any new service connections to the sewer system until this issue is resolved. A "Hydrogeologic Characterization and Test Well Feasibility Analysis" was prepared in Sept 2010 regarding the Total Dissolved Solids issue. A supplemental Technical Memorandum regarding the Nitrate contamination issue was prepared in June 2011. Both reports recommend relocation of the well to a location about 1,800 feet west of the existing well, closer to the Salinas River. The first phase of implementation will be to acquire a temporary construction easement and drill a test well at the indicated location. A comprehensive sampling and testing regime must then be undertaken. If the testing program indicates the selected location is appropriate for a long-term reliable public water source, the next steps will be to prepare a Project Description, conduct CEQA, acquire permanent easements for the production well and pipeline, prepare final engineering plans and specifications, and construct the improvements. | \$465,000 | | \$465,000 |
| Monterey County Water Resources Agency | Aquatic Invasive Species Inspection Project | Monterey County Water Resources and/or its partners will monitor incoming vessels at the entry gates and the public launch ramps at Lake Nacimiento and Lake San Antonio. All vessels will be screened and/or inspected prior to launch to determine if the vessel, trailer, etc. poses high risk of carrying aquatic invasive | \$471,000 | \$160,000 | \$631,000 |

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| | | species (AIS). Upon completing the screening or inspection process, it will be determined if the vessel is clean, drained and dry and therefore eligible to launch. The purpose of this project is to provide an inspection process at the Agency owned lakes that assesses and manages the risks of aquatic invasive species (AIS) without shutting the waters to all recreational boating. The transport of AIS vectors by trailered, recreational boaters is not the only way such vectors may enter a watershed, but as a controllable point of entry, vehicle inspection programs have proven useful in reducing the spread of AIS in other regions of the country. | | | |
| Monterey County Water Resources Agency | Coastal Dedicated Monitoring Well Drilling | The twelve dedicated monitoring wells will be drilled under the oversight of a Professional Geologist (PG). The four-inch diameter wells will be drilled using Sonic drilling method that allows discrete evaluation of geology to determine where well perforations will be placed. The wells will be strategically placed in Monterey County Right-of-Way locations with the goal to fill water quality and water level data gaps in front of and behind the 2009 500 mg/L chloride seawater intrusion fronts for the Pressure 180-Ft. and Pressure 400-Ft. aquifers. | \$691,200 | \$230,400 | \$921,600 |
| Monterey County Water Resources Agency | Dedicated Monitoring Well Expansion Project | This Project will fund the expansion of the Dedicated Monitoring Well Program (DMW) within the Salinas Valley Ground Water Basin. The current DMW program consists of 35 wells located throughout the Basin but does not provide enough coverage for a robust data analysis and extrapolation. Up to 100 wells, 25 per subarea (Pressure, East Side, Forebay, and Upper Valley) will be drilled under the oversight of a Professional Geologist. Geology during the drilling process will be evaluated for each well to determine where perforation will be placed. The wells will be strategically placed in Monterey County Right-of Way locations with the goal to fill water quality and water level data gaps throughout the entire Basin and to provide sufficient data to complete a robust analysis and extrapolation to the remaining areas of the Basin and the subareas. Water quality and water level data will be provided to CEDEN and CASGEM at the end of each monitoring event. | \$8,525,010 | \$2,841,670 | \$11,366,680 |
| Monterey County Water Resources Agency | Granite Ridge Regional Water Supply Project | MCWRA is proposing to implement the Granite Ridge Regional Water Supply Project to alleviate existing water supply and water quality deficiencies in the Granite Ridge area of northern Monterey County. Groundwater is the single source of water supply for the Granite Ridge area and is highly limited due to an underlying granitic formation. As a result, Monterey County and the MCWRA are proposing the Project to serve existing lots of record experiencing water supply problems in the Granite Ridge area. The Water Supply Project will enable MCWRA to provide potable water service in a way that complies with United States EPA and California Department of Public Health drinking water standards. The Water Supply Project will enable MCWRA to improve the reliability of water supply by interconnecting existing smaller systems into a consolidated water supply system with a new groundwater well to improve supply reliability. | \$6,625,000 | \$19,875,000 | \$26,500,000 |
| Monterey County Water | Ground Water Conservation and | This Project will fund the expansion of the Ground Water Conservation and Extraction Program (GWCE) into MCWRA Zone 2C. The MCWRA maintains a | \$400,702 | \$133,568 | \$534,270 |

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| Resources Agency | Extraction Monitoring Expansion Project | GWCE that provides critical data about water conservation practices and ground water extractions (withdrawals) in Zones of Benefit. “Zones of Benefit” are geographic areas that receive hydrologic benefit from managed conservation releases from the dams at the Nacimiento and San Antonio reservoirs. The current GWCE Program has operated successfully within the boundaries of Zones 2, 2A, and 2B since 1993. In 2003, MCWRA designated a new Zone of Benefit – Zone 2C, which encompasses a larger geographic area than the original areas of Zones 2, 2A, and 2B. The GWCE Program ordinances require agricultural and urban well operators (and ultimately well owners) to submit annual reports of monthly ground water pumped from each of their wells with a discharge pipe having an inside diameter of three inches or greater. Conservation Plans that describe water conservation practices that will be implemented the upcoming year, and which practices were implemented in the previous year. The Agricultural Plans also include an additional form, called the Water and Land Use Form, which asks agricultural water users for the amount of water applied and the number of irrigated acres for each crop category (vegetables, berries, grapes, etc.). | | | |
| Monterey County Water Resources Agency | Nacimiento Dam Low Level Outlet Works Rehabilitation | The Low Level Outlet Works (LLOW) at the Nacimiento Dam consists of a concrete intake structure, penstock and a downstream control structure. The downstream control structure is the focus of this proposed upgrade. Many of the valves have become harder to operate, corrosion of varying degrees has occurred on the gooseneck discharge diffusers, and erosion of the concrete stilling basin has occurred over time. Rehabilitation to the existing downstream control structure would include the following. Replacement of all six, 24” valves; five of which would be replaced with plug type valves and one would be upgraded to a new energy dissipating, multi-orifice valve (MOV), type valve. Replacing/upgrading existing valves will increase operational integrity and flexibility in that regulation of normal discharge flows could occur in one of the six valves. All new valves shall be electronically and/or hydraulically actuated to increase efficiency in implementing reservoir release changes. New gooseneck discharge diffusers shall be installed adjacent to associated valves, and designed to reduce erosion within the concrete stilling basin. The concrete stilling basin shall be structurally reinforced to prevent further erosion. Protective steel covers/grating above the stilling basin has deteriorated and need be replaced along with security fencing around the perimeter of the downstream control structure. The project will safely allow bypass of the hydroelectric power plant for increased releases and maintenance activities. | \$384,000 | \$128,000 | \$512,000 |
| Monterey County Water Resources Agency | Salinas River Fisheries Enhancement Project | The SRFEP is a culmination of the fisheries-related work that is necessary for the implementation of the Salinas Valley Water Project (SVWP). There are three main purposes for the SRFEP: (1) population monitoring to quantify the presence of the Endangered Species Act listed <i>Oncorhynchus mykiss</i> (steelhead trout) in the lower Salinas River system (2) monitor river flows to ensure adequate water for fish passage (migration monitoring) (3) monitor water quality to determine habitat | \$867,000 | \$290,000 | \$1,157,000 |

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| | | suitability. Tasks that identify the presence and/or enhance the population of <i>O. mykiss</i> will be performed within the Salinas River Watershed in the Salinas River, the Salinas River Lagoon, the Nacimiento River and the Arroyo Seco River. | | | |
| Monterey County Water Resources Agency | Salinas River Flood Risk Reduction and Habitat Improvement Project | The project provides long-term guidance and outlines maintenance procedures that will be used by the Participants along the Salinas River mainstem and portions of San Lorenzo Creek, Bryant Canyon Channel, and Gonzales Slough to conduct stream maintenance activities (i.e., non-native and native vegetation treatment, sediment management) on a voluntary basis to maximize flood flow capacity and minimize bank erosion, while minimizing environmental effects, helping to protect against flooding during and after major storm events. As conditions change or are updated, or as environmental regulations evolve, the project would also evolve to keep pace. MCWRA proposes to administer the project for up to 10 years. The central tenet of the project is that maintenance activities are conducted using an informed and systematic approach to minimize stream impacts while providing improved flow conveyance. | \$787,500 | \$262,500 | \$1,050,000 |
| Monterey County Water Resources Agency | Salinas River Flood Risk Reduction Project | The project will fund the preparation of a combined NEPA/CEQA document for the Salinas River Flood Risk Reduction Project, which allows channel maintenance activities on the mainstem of the Salinas River. MCWRA has partially funded this effort but additional funding is requested to complete the work, allowing the Salinas River Flood Risk Reduction Project to be implemented. Flooding of agricultural lands within the Salinas Valley, adjacent to the river, has occurred during conditions when in-channel sandbars and riparian vegetation including invasive plants impede high flows. Additionally, limited flood flow capacity in high rainfall years has caused damage or destruction to public infrastructure and private property. As such, MCWRA developed and administers the Salinas River Flood Risk Reduction Project to enhance flood protection, improve riparian habitat and reduce flood damage. | \$420,000 | \$140,000 | \$560,000 |
| Monterey County Water Resources Agency | Salinas Valley Water Project, Phase II | The project will capture and divert surface water from the Salinas River, which will be conveyed and delivered to the East Side and Pressure Subareas to effectively utilize water allocated to MCWRA by Water Right Permit #11043 and offset groundwater pumping in the Salinas River Groundwater Basin. The Project incorporates two surface water diversion points, one located near the City of Soledad and the other located south of the City of Salinas. Each diversion point will be accompanied by conveyance and delivery facilities, the locations and termini are yet to be determined. Up to 135,000 acre-feet per year of water will be diverted from the Salinas River and supplied for municipal, industrial, and/or agricultural uses in the Pressure and East Side subareas. | TBD | TBD | TBD |
| Monterey County Water Resources Agency | San Antonio Dam Butterfly Valve Project | The project will rehabilitate the Butterfly Valve Operator System at San Antonio Dam. The purpose of this project is to update/modify an existing 56-year-old facility to enhance reliability, efficiency, and safety. The associated butterfly valve is operated/exercised via its original hydraulic operator system. Since its | \$200,000 | \$80,000 | \$280,000 |

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| | | installation in 1965, the butterfly valve and associated operator/control systems have been subject to normal operational wear and tear. However the butterfly valve's operator appears to be experiencing difficulty in effecting complete valve closure in a desired time period. Rehabilitation to the existing butterfly valve system would include installation of a new hydraulic operator system, including hydraulic control panel, ram, latching system, and associated mechanical appurtenances. The new hydraulic operator system will have the capability to operate/exercise the butterfly valve locally (in the valve chamber) as well as remotely (in the control house). Remotely augmenting the associated butterfly valve will not only increase operational flexibility, but will also provide an added layer of safety. | | | |
| Monterey County Water Resources Agency | Test Well for Regional Desalination Project – Slant Well | The Monterey area has had long-standing difficulties with its water supply. The area has no imported water sources and local supplies have sometimes been insufficient to provide the expected amount of water. Over the past several decades, local sources have been further constrained due to legal decisions and several proposed projects meant to increase the region's water supply have been rejected by local voters. In response to the Seaside Basin overdraft and to address the 2006 State Board's Division of Water Rights Cease-and Desist Order to Cal-Am to reduce its Carmel River well water withdrawals, an alternative "Regional Water Project, Phase I" was proposed. This alternative proposed using vertical and slant wells to produce and treat brine water by reverse osmosis, (RO), and then deliver the potable water for use on the Monterey Peninsula to remove the State Board Cease and Desist Order. This proposal would fund the slant test well drilling component of the abovementioned project to determine project feasibility. The proposed project includes four sets of monitoring wells to be located at the project site within about 200 feet of the surface of the slant well. The proposed wells would be constructed and tested over a period of about one year. | \$3,000,000 | \$1,000,000 | \$4,000,000 |
| Monterey County Water Resources Agency | Water Supply Reliability Project | The Water Reliability Project is designed to address the deferred maintenance and improvement of MCWRA facilities used in its operations. The age of many of the facilities critical to the operation of the MCWRA are 20 to 60 years old. While operational, most of these older facilities have had maintenance or improvements, due to new requirements, deferred. This project consists of several discrete maintenance tasks and improvements at several facilities including the Nacimiento Dam and Hydroelectric Facility, San Antonio Dam, Rec Ditch, Castroville Seawater Intrusion Project, and Salinas River Diversion Facility. Performing these maintenance tasks and improvements are critical to MCWRA's operations that provide conservation, flood control, recreation, fight seawater intrusion, and increase water source diversity. | \$2,605,800 | \$868,600 | \$3,474,400 |
| Monterey Regional Water Pollution Control Agency | Blanco Drain Diversion to MRWPCA Regional | The Monterey Regional Water Pollution Control Agency and Monterey County Water Resources Agency are working collaboratively to help divert, convey and treat agricultural return water from the Blanco Drain for maximum beneficial use. The flows from the Blanco Drain would receive at the minimum primary and | \$2,000,000 | \$4,362,065 | \$6,362,065 |

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| | Treatment Plant | secondary wastewater treatment. Depending on the time of year, the flows would undergo additional treatment at either the advanced water treatment facilities for the Pure Water Monterey project or the water would be sent to the tertiary treatment plant and then moved to the growers in the CSIP area as recycled water. This project will require a new pump station and conveyance appurtenances to deliver the water to MRWPCA's Regional Treatment Plant. Flows in the Blanco Drain peak in the summer months yet have continuous flow during the winter months. Diverting flows from the Blanco Drain during the summer will help bolster flows in the Regional Treatment Plant which will lead to an increase the amount of water to be recycled and reused by the urban and agriculture sectors. | | | |
| Monterey Regional Water Pollution Control Agency | Stormwater Return Facilities from the Salinas Industrial Wastewater Facility to the MRWPCA Salinas Pump Station | The City of Salinas and MRWPCA are working collaboratively to utilize existing infrastructure to help divert, store, convey and treat storm water and industrial waste water for maximum beneficial use. This project will repurpose existing infrastructure to bring back water from the Salinas Industrial Waste Facility Ponds to the Salinas Pump station. The new source waters would include the following: 1) water from the City of Salinas agricultural wash water system, 2) stormwater flows from the southwestern part of the City of Salinas 3) surface water and agricultural tile drain water that is captured in the Reclamation Ditch and 4) surface water and agricultural tile drain water that flows in the Blanco Drain. The stormwater could be stored in the ponds. The stormwater would be conveyed to MRWPCA's Regional Wastewater Treatment Plant (RTP) and treated to recycle it for injection into the Seaside Groundwater Basin (and later extraction for replacement of existing municipal water supplies) and to provide an additional 4,750 to 5,290 AFY of recycled water for agricultural irrigation in northern Salinas Valley through the CSIP system. | \$5,000,000 | \$2,500,000 | \$7,500,000 |
| Nacimientto Regional Water Management Advisory Committee | Interlake Tunnel between Lake Nacimientto and Lake San Antonio (Implementation) | The project is to build an interlake tunnel between Lake Nacimientto and Lake San Antonio. The project would explore various options for size, type, input and exit structures of the tunnel. Additionally numerous technologies for alternative energy generation will be evaluated, specifically in-line hydro-electric power generation and solar power for pumping and other systems. With the recent changes in allowed water storage derived from the modification of the Lake Nacimientto dam spillway due to the completion of the Salinas Valley Water Project there has been a renewed interest in capturing all of the rainwater run-off. This past year, despite the increased storage capacity of Lake Nacimientto, tens of thousands of acre feet of water were released this past year for flood control, ultimately flowing to the ocean as wasted water. Over the same period Lake San Antonio had a minimum of 20% of its storage capacity available - twice what which was needed to store the extra runoff from Lake Nacimientto. During the winter season, this tunnel would transfer extra rainwater that would be released which travels the Salinas River and ends up wasted in the Pacific Ocean. The water from these two lakes would then be used downstream for groundwater recharge, abatement of saltwater intrusion, and the promotion of fish habitats. | \$8,600,000 | \$2,150,000 | \$10,750,000 |

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| | | Increasing the total available supply of water will benefit all of these uses, industries and communities. | | | |
| Pajaro/Sunny Mesa Community Services District | Springfield Water Project | Funds are requested for construction of a new well, storage tank, and associated distribution system in order to comply with the Nitrate Maximum Contamination Level (MCL) and saltwater intrusion regulations for the Springfield water system. The Springfield water system is made up of 35 connections supplying water to about 165 low-income farmworkers. The system has exceeded the nitrate MCL since at least 1986. The District took over the Springfield water system in 2004. Water containing nitrates in excess of 45 ppm present a risk to the health of humans when continually used for drinking or culinary purposes; the current level of nitrates is 293 ppm into Springfield. The project proposes that a new well be drilled on a site next to the Moss Landing Middle School on Springfield Road. The District obtained title to the site in 2006 and drilled a test well. The test well meets regulatory standards and can provide sufficient water for the Springfield water system and the Moss Landing Mobile Manor located within a mile of the water system. The Springfield water system could consolidate the Moss Landing Mobile Manor water system with this project. The project also consists of constructing a 210,000-gallon storage tank on the same site. The system is currently on a demand basis without water storage. The tank constructed at this site would be at a higher elevation than the distribution system, allowing the system to be gravity fed. | \$3,000,000 | | \$3,000,000 |
| Resource Conservation District of Monterey County | Livestock and Land: Rangeland and Livestock Facility Water Quality, Vegetation Management and Wildlife Enhancement Program | The purpose of this program is to achieve immediate and lasting reductions in nutrient, sediment and pathogen pollution to surface and ground waters and enhance wildlife habitat through implementation of best management practices (BMPs) on livestock facilities and rangelands in the Greater Monterey County IRWM region. The proposed program utilizes an incentives-based approach to achieve the cultural change needed for livestock facilities to voluntarily adopt management measures that improve the healthy functioning of watersheds. Projects are implemented in high priority areas identified by the TMDLs and other regional and local plans. Water quality and wildlife goals will be achieved through implementation projects, project design, technical assistance, recruitment and training. We will employ a systematic evaluation process to measure program effectiveness through participant surveys, before and after site load reduction modeling and site-specific erosion and runoff assessments. | \$899,852 | \$293,000 | \$1,192,852 |
| Resource Conservation District of Monterey County | Monterey County Farm Water Quality Assistance Program | The RCD of Monterey County, in close partnership with University of California Cooperative Extension Crop Advisors and USDA Natural Resources Conservation Service, will provide a bilingual on-farm erosion, irrigation, and nutrient management evaluation program for Monterey County farmers. The service will 1) evaluate erosion potential, irrigation system and application efficiency, and nutrient budgeting; 2) develop recommendations as needed for field configuration, soil stabilization, and refined water and nutrient applications; and 3) assist growers' voluntary implementation of those recommendations to | \$583,000 | \$191,000 | \$774,000 |

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| | | help reduce excess soil, water and nutrient movement off area farms while optimizing farm productivity. This work is already underway on a smaller scale, and incorporation into the Greater Monterey County IRWMP and the requested funding would support development of a full program for the next three years. | | | |
| Resource Conservation District of Monterey County | Salinas River Watershed Invasive Non-native Plant Control and Restoration Program | Wildlife habitat, flood control and water availability on the Salinas River and its tributaries are compromised and threatened by invasive nonnative plants, including the second-largest invasion in California of the noxious weed, <i>Arundo donax</i> . <i>Arundo</i> is a nonnative aggressive perennial grass that has overtaken approximately 2,500 acres of the Salinas River, forming enormous monocultures with virtually no food or habitat value for native wildlife. Aerial GPS-linked photo reconnaissance of the Salinas River and several tributaries by the RCDMC in May 2011 identified Tamarisk (<i>Tamarix ramosissima</i>) as another major invasive plant that is displacing native vegetation and actively migrating into the Salinas River from several tributaries. The project proposal is for the first 3-year stage of treatment (of a 10+ year program) and will target <i>Arundo</i> and tamarisk and other invasive weeds in the channel, floodplain and terraces of the Salinas River between King City and Soledad. All non-native invasive weeds present in these areas will be treated using a combination of physical, chemical and biological techniques, and selected sites will be revegetated with native plants as appropriate to the site (considering flood risk, natural recruitment potential, and landowner interest). | \$1,215,500 | \$419,000 | \$1,634,500 |
| Rural Community Assistance Corporation (RCAC) | Greater Monterey Bay Disadvantaged Community Wastewater Management Pilot Program | Too often we read about septic effluent influencing our agricultural lands and creating public health and other environmental hazards. If these disadvantaged communities had the opportunity to create an Inspection and Monitoring Program for their community onsite wastewater systems, they would be successful in limiting public health hazards and environmental pollution. The Greater Monterey Bay Disadvantaged Community Wastewater Management Pilot Program will form a collaboration of experts, students, community leaders and local government to implement an Inspection and Monitoring program of community onsite wastewater systems. This program will include creating a local entity to manage multiple systems to ensure the systems are operating properly. The program will create an on-going operation and maintenance program, including ground water monitoring, for selected disadvantaged communities that are served by individual septic systems that may not afford traditional sewer systems. | \$677,000 | \$12,000 | \$689,000 |
| San Jerardo Cooperative, Inc | Disadvantaged Community Water Quality and Conservation Program | The Program will address severe water supply and water quality needs for three Disadvantaged Communities. The Alpine Court and San Vicente Road communities in rural south Monterey County have drinking water wells with samples testing in excess of public health standards for nitrates. Septic systems on sites are aging and one has been deemed in need of complete replacement. The contaminated wells and failing septic systems will be replaced with new, deeper well installations and upgraded wastewater systems. The Wastewater Treatment Plant at the San Jerardo Cooperative will be upgraded to meet State guidelines and | \$2,500,000 | | \$2,500,000 |

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| | | County code requirements to allow recycled treated water to be used for on-site irrigation. In addition, storm water improvements will be installed at the entrance to the Cooperative to divert storm related flows and prevent seasonal flooding of public roadways. Finally, a water conservation program consisting of installation of “water saver” plumbing fixtures, grey water connections, rainwater collection features and low water use landscaping will be included for all three projects participating in the Disadvantaged Community Program. The program will include workshops with training provided by Ecology Action. | | | |
| Save Our Shores | Save Our Shores Watershed Protection Program - Annual Coastal Cleanup Day in Monterey County | Save Our Shores (SOS) has been coordinating Annual Coastal Cleanup Day (ACC) in Santa Cruz since 2007 and has grown the event from 1,929 volunteers and 42 beach sites to 3,800 volunteers and 52 beach and river sites, in just two years. While SOS has been running ACC in Santa Cruz, California State Parks had been running ACC in Monterey since 2001 and no longer had the staff or resources to continue running this event after 2009. Because of the success that SOS has had in expanding the event in Santa Cruz, State Parks and the Coastal Commission asked SOS to take over this responsibility in Monterey in 2010. SOS ran the program in Monterey based on best practices from Santa Cruz and increased the number of volunteers from the previous 1,400 average to over 2,000 the first year and increased the number of sites by including river cleanups through our partnership with Return of the Natives, and involving businesses through sponsorship and employee participation. In the coming years, volunteers will continue to gain a valuable experience in understanding the problem of marine debris and learning ways that they can help solve the problem, and the thousands of visitors that Monterey beaches attract will benefit by experiencing cleaner beaches. | \$12,000 | \$12,000 | \$24,000 |
| The Nature Conservancy | Salinas Multi-Benefit Floodplain Management | The Multi-Benefit Salinas River Management Project is a collaborative partnership with growers, water resource managers, county, state and federal agencies, conservation groups and other stakeholders to develop an adaptive approach to flood risk reduction, groundwater recharge, community health and safety, and riparian and coastal biodiversity. Partners will organize into ‘management neighborhoods’ to model flood risk, nutrient fate and transport, and water balance to design integrated management strategies to build consensus on existing conditions, costs of different management strategies, and how to optimize benefits. Strategies will include off-channel flood attenuation and storage areas (e.g., ponds, bypasses, compound channels), coordinated passive and active management of native vegetation for enhanced habitat, flood conveyance, and water quality treatment; and removal of Arundo. Market mechanisms and tools, such as risk pools, cost shares, and benefits transfers, will be developed in coordination with regulatory agencies, industry and other partners to maximize positive outcomes across socioeconomic and ecological benefits. | \$866,053 | \$288,684 | \$1,154,737 |