

RESOLUTION NO. 2016-_____

**A RESOLUTION OF THE CITY COUNCIL OF
THE CITY OF MERCED, CALIFORNIA,
APPROVING A CATEGORICAL EXEMPTION
FOR GENERAL PLAN AMENDMENT #16-02
AND APPROVING GENERAL PLAN
AMENDMENT #16-02 TO AMEND THE SAFETY
AND CONSERVATION ELEMENTS OF THE
MERCED VISION 2030 GENERAL PLAN TO
INCLUDE INFORMATION, MAPS AND
POLICIES CONSISTENT WITH STATE
MANDATES RELATED TO PROTECTION OF
PROPERTY AND LOSS OF LIFE FROM
FUTURE LOCAL FLOOD EVENTS**

WHEREAS, the Planning Commission of the City of Merced held a noticed public hearing on May 4, 2016, at which time all those interested in the matter were provided the opportunity to speak or provide written or oral testimony regarding the application; and

WHEREAS, after hearing all of the evidence and testimony and after exercising its independent judgment and review, the Planning Commission recommended the adoption of a Categorical Exemption following Environmental Review #16-10 pursuant to the California Environmental Quality Act and recommend that the City Council approve General Plan Amendment #16-02, as presented in Exhibit A; and

WHEREAS, the City Council held a noticed public hearing on June 6, 2016, at which time all those interested in the matter were provided the opportunity to speak or to provide written or oral testimony regarding the application.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MERCED AS FOLLOWS:

SECTION 1. CALIFORNIA ENVIRONMENTAL QUALITY ACT.
Based upon the evidence and testimony in the record at the City Council public hearing, the City Council exercising its independent judgment and review, hereby adopts and approves the Categorical Exemption following Environmental Review #16-10 pursuant to the provisions of the California Environmental Quality Act.

SECTION 2. GENERAL PLAN AMENDMENT ADOPTION. The General Plan of the City of Merced is hereby amended by approving General Plan Amendment #16-02, which amends the Safety and Conservation Elements of the Merced Vision 2030 General Plan to include information, maps and policies (Exhibit A) consistent with state mandates related to protection of property and loss of life from future local flood events.

PASSED AND ADOPTED by the City Council of the City of Merced at a regular meeting held on the ____ day of _____ 2016, by the following vote:

AYES: Council Members:

NOES: Council Members:

ABSENT: Council Members:

ABSTAIN: Council Members:

APPROVED:

Mayor

ATTEST:
STEVE CARRIGAN, CITY CLERK

BY: _____
Assistant/Deputy City Clerk

(SEAL)

APPROVED AS TO FORM:

Ken Ryce 5/18/16
City Attorney Date

Hazard Response – Dam Failure

The damage control and disaster relief efforts, in the case of inundation from Bear Creek Reservoir, would most likely be required from local governments, private organizations, and from State and Federal governments. This “mutual aid” could consist of mass evacuation of the inundation areas, search and rescue operations, emergency medical care, food distribution, and temporary shelter for injured or displaced persons. State and Federal assistance could be useful to remove debris and clear roadways, assist in re-establishing public services and utilities, and provide continuing care and welfare for the affected population, including temporary housing of displaced persons.

Evacuation Routes and Water Supply

The County Evacuation Plan for both dams shows the Merced County Fairgrounds as the evacuee assembly points and addresses what evacuation routes, priorities, and procedures should be followed. The City’s ability to supply the potable water requirements during this time will depend on which dam failed and the height of the inundation wave in relationship to the height of the 100-year and 200-year flood. The current City policy on well facility construction as it relates to inundation is that the well facility entrance be one-foot higher than the 100-year flood elevation, that one facility be placed in each square mile, and that a three-day energy reserve be present at the pump.

There are currently only a few wells in the Lake Yosemite inundation area because the area is mostly undeveloped at this time. Furthermore, those existing wells that would be subject to inundation are in an area of relatively shallow inundation elevations.

Bear Lake inundation, however, would be much more serious provided that actions were not taken to protect the wells within the six-plus hours prior to inundation.

11.2.4 Flooding

Flooding continues to be the most widespread weather-related safety hazard in the United States, and accounts for greater average annual property losses than any other single hazard. Flooding can be especially troublesome in the Central Valley because it is a natural event. ~~The valley is a drainage basin for thousands of acres of Sierra and Diablo foothill and mountain land, and the long dry spells lead people to think that flooding cannot occur where they live. In 1911, 1935, and 1955, large floods occurred within those portions of Merced that were developed at the time; in intervening years, flooding occurred every three to five years (information concerning non-developed areas currently in the planning area and floods prior to 1911 is not available). Significant flooding in some parts of the City also occurred in 2006. See Figure 11.4.~~

Approximately 25 square miles of land in the Merced area are subject to 100-year or more frequent floods. This is illustrated by **Figure 11.5**. The Flood Insurance Rate Maps (F.I.R.M.) identify flood-prone areas which were required to be recognized by the Federal Flood Disaster Protection Act. These maps are the source of more detailed flood information for the planning area, and are periodically updated to reflect new information.

~~The State of California has adopted legislation that requires jurisdictions to prepare floodplain regulations based on the 200-year flood event. New maps identifying~~

~~the 200-year-event boundaries were issued in October 2008. The maps do not indicate that there are any areas within the City limits or the proposed SUDP/SOI that are impacted by the 200-year floodplain.~~

Changes in land use from agriculture to urban have profound effects on runoff and erosion of the land surface. The City has teamed up with Merced County, Merced Irrigation District and The City of Atwater to form a Stormwater Group with a Stormwater Management Plan to address erosion, sedimentation and other non-point pollutants of concern in order to protect water ways.

Urbanization is commonly accompanied by paved and other impervious surfaces, and the construction of storm sewers.. Impervious surfaces and storm drains increase the frequency of floods and the size of flood peaks. The volume of runoff from new urban areas is far greater than under pre-existing conditions unless detention basins are constructed, as required in Merced.. Most floods in Merced are produced by extended periods of rainfall during the winter months. Dam failure is another source of flooding which was addressed separately in Section 11.2.3 of this chapter.

Merced County Streams Group Project

The Merced County Streams Group Project was approved by Congress in 1970. The project was re-evaluated by the U.S. Corps of Engineers in 1980 and some construction has been completed, but the entire project currently lacks funding commitments. The project, as laid out in 1980, entailed construction of two new detention dams (Castle on Canal Creek and Haystack Mountain on Black Rascal Creek), the enlargement and modification of the Bear Creek detention dam, and construction and

modification of 32 miles of levees and channels on the Bear Creek Stream Group (Fahrens, Black Rascal, Cottonwood, and Bear Creeks, Black Rascal Slough, and El Capitan Canal).

Castle Dam and a diversion structure from MID's main canal has been completed to date. Approximately 24 square miles in the planning area would be removed from the 100-year or more floodplain by this project. *Figure 11.5* illustrates the change in area covered by the 100-year floodplain that could be attributed to the construction of the project.



Due to environmental considerations, it is unlikely that Haystack Mountain dam will be constructed. The proposed Haystack Mountain reservoir area has significant vernal pool areas. In 2004, the Army Corps of Engineers began considering as an alternative an East side bypass, extending from the Black Rascal Diversion at Bear Creek south past Hwy 99 to the Miles and Owens Creek drainages. This would divert both Black Rascal and Bear Creek flood flows away from the City of Merced. However, there is insufficient capacity in Miles and Owens Creeks to carry flows down to the San Joaquin River, so that this solution is problematical, without an expensive further extension of a flood bypass.

The text below is proposed to be added to Section 11.2.4 “Flooding” of the *Merced Vision 2030 General Plan*. This new text will replace text that is proposed to be deleted (marked in strikethrough) on page 11-10.

New Text for Section 11.2.4 of the Merced Vision 2030 General Plan:

The State of California has adopted legislation that requires jurisdictions to prepare maps, goals, policies, implementation measures and regulations based on a 200-year flood event. This standard is distinct from federal flood protection efforts. Portions of the City are subject to the 200-year standard. One such area (as shown in Figure 11.4) is the State Levee Flood Projection Zone of Black Rascal Creek located downstream of a state levee. The effect of the state’s flood-related legislation on the City of Merced is described in the November 2015 Summary Report on Urban Level of Flood Protection adopted by reference as part of the General Plan. This report includes a map that depicts the state’s regulatory requirements for flood protection, and is also presented in Figure 11.5a.

MAIN & N STREET FLOODING



16TH STREET FLOOD

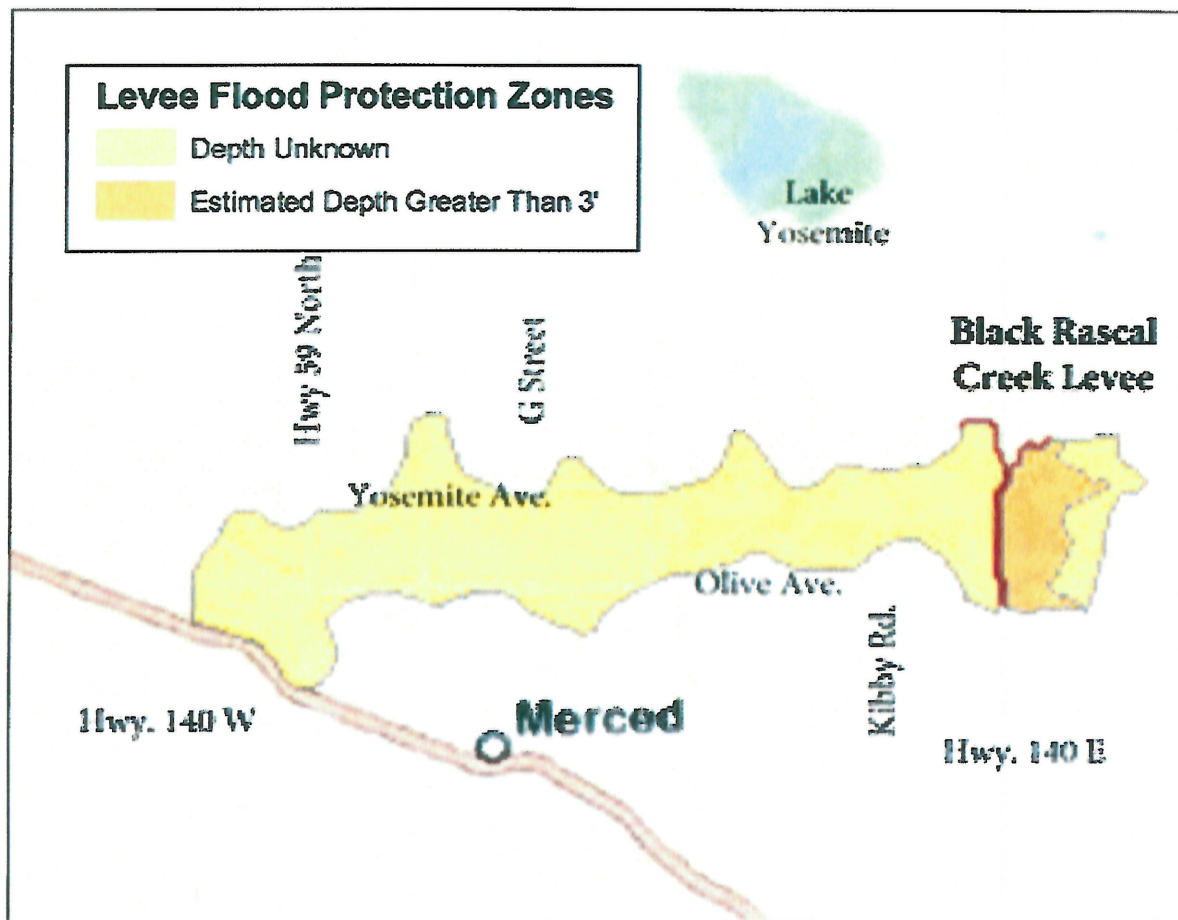


SOURCE: Merced County Historical Society



THE FLOOD OF 1935

Figure
11.4



Levee Flood Protection Zones estimate the maximum area that may be inundated if a project levee fails when water surface elevation is at the top of a project levee. Zones depicted on this map were created utilizing methods and assumptions described in the accompanying technical manual, and do not necessarily depict areas likely to be protected from flow events for which project levees were designed.

Lands within the Levee Flood Protection Zones may be subject to flooding due to various factors, including the failure or overtopping of project or non-project levees, flows that exceed the design capacity of project or non-project levees, and flows from water sources not specifically protected against by project levees. Lands not mapped within a Levee Flood Protection Zone are not invulnerable to flood risk, and some may also experience flooding from those or other processes.



CITY OF MERCED
STATE LEVEE FLOOD PROTECTION ZONE

Figure
11.4

Recommended Revised Safety Element Goals, Policies and Implementation Measures

Goal Area S-3: Flooding

GOAL

- ~~A City Free From Other Than Street Flooding~~ Protect people and property from flood risk.

POLICIES

S-3.1 Avoid or Minimize the Risks of Flooding to New Development.

~~S-3.12 Implement Protective Measures for Areas in the City and the SUDP/SOI, Within the 200-Year Floodplain. Implement appropriate land use planning practices to improve flood risk management and reduce the consequence of flooding.~~

S-3.23 Maintain essential City services in the event of flooding or dam failure.

S-3.4 Locate and Design Essential Facilities to Minimize Flood Risk

S-3.5 Coordinate with other local, regional, State, and federal agencies to improve flood risk management.

Policy S-3.1

Avoid or Minimize the Risks of Flooding to New Development.

Implementing Actions:

3.1.a Limit future development in areas with high flooding risk to the extent feasible to open space, green belts, and other natural areas, recreational use or agricultural use. Maintain public safety and sustainable development in areas prone to risk of flooding.

3.1.b Require that roadway systems for areas protected by levees and dams be designed to provide multiple escape routes for residents and access for emergency services in the event of a levee or dam failure.

3.1.c Encourage multi-purpose flood management projects that incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of the community's watercourses, creeks, and streams.

The City will continue to review its own infrastructure facilities to make sure that they are protected from flooding so they will continue to function and provide service to City residents in the event of a flood. The City will also work with other jurisdictions to address flood issues and

to limit development to the extent feasible in flood hazard areas.

Policy S-3.12

Implement Protective Measures for Areas in the City and the SUDP/SOI Within the 100-Year and 200-Year Floodplains. Implement Appropriate Land Use Planning Practices to Improve Flood Risk Management and Reduce the Consequence of Flooding.

Implementing Action:

- 3.12.a** ~~Continue to implement the City's Flood Damage Prevention Ordinance and other measures as needed to protect areas within the City and the SUDP/SOI that are within the 100-year and 200-year floodplains as applicable.~~

Require evaluation of potential flood hazards prior to approval of development projects to determine whether the proposed development is reasonably safe from flooding and consistent with the State of California Department of Water Resources' (DWR) *Urban Level of Flood Protection Criteria* for an urban level of flood protection standard (200-year) in urban and urbanizing areas. The City will not approve new development or a subdivision or enter into a development agreement for any property within a flood hazard zone, unless the adequacy of flood protection specific to the area has been demonstrated.

- 3.12.b** ~~The City shall evaluate areas within its SUDP/SOI to identify areas of potential localized flood hazards using an official flood insurance rate map issued by the Federal Emergency Management Agency (FEMA), the National Flood Insurance Program maps published by FEMA, information about flood hazards available from the U.S. Army Corps of Engineers, dam failure inundation maps available from the Office of Emergency Services, Awareness Floodplain Maps and 200-year flood plain maps available from the Department of Water Resources, historical data available from the City, County of Merced, and any other sources as appropriate during the preparation of a Hazard Mitigation Plan.~~

Require that new development and substantial improvements or upgrades in identified FEMA flood hazard zones (i.e., 100- and 500-year floodplains) be constructed in accordance with applicable city, State, and federal regulations, including compliance with the minimum standards of the Federal Emergency Management Agency and the National Flood Improvement Program to avoid or minimize the risk of flood damage.

- 3.12.c** ~~Essential facilities (i.e., hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities), when feasible, shall be located outside of flood hazard zones, or construction methods and other methods to minimize damage from flood hazards identified, so that structural and operational integrity is maintained during flooding.~~

Require new development in dam or levee inundation areas to consider risk from failure of these facilities and to include mitigations to bring this risk to a reasonable level.

- 3.12.d** ~~The City shall develop a program with criteria to determine when construction of essential public facilities and other critical facilities will be permitted in flood hazard zones or areas with other geologic hazards." Review annually and update, as necessary, appropriate General Plan elements to reflect current floodplain mapping data available from local, regional, State, and federal agencies to ensure the best available flood risk mapping information is contained in the general plan.~~

~~In 2008, the State of California adopted new legislation that requires jurisdictions to prepare~~

certain floodplain regulations based on the 200-year flood event, instead of the previously used 100-year flood event. New maps identifying the new areas have been issued, and no additional areas within the SUDP/SOI have been identified as being impacted by the 200-year floodplain. The City's Flood Damage Prevention Ordinance is the implementing tool that the City uses to address flood issues. The City uses the FEMA maps and other sources to identify flood hazard areas, which will be addressed in a future Hazard Mitigation Plan currently being prepared by the City. The City will also identify "essential facilities" per Government Code 65302(g)(A)(iv) and to the extent feasible, make sure they are located outside flood hazard areas or constructed to withstand flood damage.

3.2.e Amend the Merced Municipal Code (Flood Damage Prevention Ordinance) pursuant to state law to provide consistency with amendments made to the General Plan pursuant to flood risk management.

Policy S-3.23

Maintain Essential City Services in the Event of Flooding or Dam Failure.

Implementing Actions:

3.23.a Continue to build all pump stations (both sewer and water) entryways at one (1) foot above the 200-year flood elevation ~~(when it has been determined and mapped)~~, and continue to implement additional standards to address flooding due to dam failure.

3.23.b Continue the "flood-proofing" of high-value or important City infrastructure, such as lift stations and signal control functions, as required by the City's Flood Damage Prevention Ordinance.

3.23.c ~~The City shall develop and maintain relationships with local jurisdictions, water districts, state agencies, and federal agencies for the purposes of: 1) providing information for the public; 2) utilizing current data (e.g., National Flood Insurance Program maps); and, 3) determining appropriate regulatory requirements for development in high hazard areas.~~

3.23.d ~~Limit future development in areas with high flooding risk to the extent feasible to open space, green belts, and other natural areas, recreational use or agricultural use. Maintain public safety and sustainable development in areas prone to risk of flooding. Maintain and update emergency response plans, including evacuation routes, that address potential flooding in flood hazard zones, in areas protected by levees and dam inundation areas. Maintain, update, and make available to the public, as appropriate, community flood evacuation and rescue maps.~~

~~The City will continue to review its own infrastructure facilities to make sure that they are protected from flooding so they will continue to function and provide service to City residents in the event of a flood. The City will also work with other jurisdictions to address flood issues and to limit development to the extent feasible in flood hazard areas. In times of flooding, when evacuation routes will be essential, the availability of a popular road may be submerged, while the availability of another lesser known road may become the viable evacuation route. Preparation and dissemination of emergency response plans and evacuation routes will benefit individuals and the community.~~

Policy S-3.4

Locate and Design Essential Facilities to Minimize Flood Risk

Implementing Actions:

3.4.a Essential facilities (i.e., hospitals and health care facilities, emergency shelters, fire stations and police stations, emergency command centers, and emergency communications facilities), when feasible, shall be located outside of 100- and 200-year floodplains, or implement design and construction methods to minimize damage from flood hazards identified, so that structural and operational integrity is maintained during flooding.

Protection of the City's essential services will be key to provision of services during times of emergency. As described below, the City will evaluate and deploy a variety of means to accomplish this implementing action (see below).

3.4.b The City shall develop a program with criteria to determine when construction of essential public facilities and other critical facilities will be permitted in flood hazard zones or areas with other geologic hazards.

This program will be developed in conjunction with the Engineering Division's effort to craft a policy reflective set of codes (see below).

3.4.c Review the municipal code and amend as necessary to require the location of new critical facilities (e.g., hospitals, emergency command centers, communication facilities, fire stations, and police stations) outside of 100- and 200-year floodplains. Where such location is not feasible, include exceptions through appropriate mitigation methods to minimize the potential flood damage to the facility.

Following adoption of the City's General Plan Amendment, the City's Engineering Division will develop and process an applicable code amendment.

Policy S-3.5

Coordinate with other Local, Regional, State, and Federal Agencies to Improve Flood Risk Management.

Implementing Actions:

3.5.a The City shall develop and maintain relationships with local jurisdictions, water districts, state agencies, and federal agencies for the purposes of: 1) providing information for the public; 2) utilizing current data (e.g., National Flood Insurance Program maps); and, 3) determining appropriate regulatory requirements for development in high hazard areas.

Establishment and development of partnerships, collaborative efforts and communication are important elements of a successful program and safe community.

3.5.b Cooperate with local, regional, State, and federal agencies in securing funding to obtain the maximum level of flood protection that is practical, with a minimum goal of achieving at least 200-year flood protection for urban and urbanizing areas.

Working with its local partners and being aware of state and federal funding opportunities, the City will seek grant funds to improve its flood-related infrastructure.

3.5.c Work with responsible parties to ensure flood management facilities and structures (e.g., pump stations, levees, canals, channels, and dams) in the community are properly maintained and/or improved.

The Merced Irrigation District maintains and improves these features within the planning area.

3.5.d Annually maintain and implement the community's Federal Emergency Management Agency (FEMA)-approved local hazard mitigation plan in order to apply for and/or receive project grants under FEMA's hazard mitigation assistance programs (e.g., Hazard Mitigation Grant Program, Pre-Disaster Mitigation, Flood Mitigation Assistance, or Severe Repetitive Loss).

The 2015 Local Hazard Mitigation Plan has a life of 5-years and includes nine projects that are eligible for grant funds. Annual updates and maintenance of the plan are part of the duties of the City's Disaster Council.

extensive sports fields for soccer and youth baseball/softball, very high quality and interesting children's play areas, basketball courts, and pathways. It is also recommended that a new indoor recreation center be sited in this park to accommodate the indoor recreation needs of the area. A master plan will guide the development of this park.

7.6.4 Park & Open Space Resources

Acquisition, development, maintenance and operation resources for the City's park and open space system must compete with many other vital City services. Historically, the system's expansion and development has been driven largely by new development.

Growth and development has resulted in a well developed park and open space system in the newer sections of the community; however, in the older portions of the City, resources have been scarce.

Long-term maintenance and operation resources are extremely vulnerable to the limited City budget resources. A long-term strategy needs to be developed to assure continued development and adequate maintenance of the system in future years.

Potential future park sites have been designated on the Land Use Diagram. The sites are given a "general" designation to identify areas of potential future needs. Service area criteria has been provided in the Park and Open Space Master Plan. Specific site locations, however, will require more specific planning.

7.6.5 Highway 59 Landfill Site

The County's main landfill facility is located along Highway 59. Present plans and policies are adequate to assure the long-term

viability of this site; however, continued monitoring of growth and development trends in the region will be necessary.

Planning efforts for the years 2030 and beyond must contemplate the maintenance of adequate open space buffers around this important public facility.

7.6.6 Ground Water Recharge

It has been determined that ground water is the most practical long-term source of water for meeting the future water needs of the City of Merced. Groundwater recharge is, therefore, critical to supporting the City's future growth. Agricultural water demands are expected to continue to utilize surface water supplies.

In order to maintain adequate municipal water needs into the future, programs have been established that encourage development of ground water recharge basins within the vicinity of the Merced urban area and utilized surface water supplies and recycled water for landscape irrigation. Some of the recharge basins may be developed in conjunction with the City's storm water retention pond system and included in the City's open space resources. Additional acres of recharge basins are expected to be required, however, and these basins will most likely need to be developed outside the City's SUDP/SOI.

In the design and development of this system of recharge basins, care must be taken to minimize the loss of agricultural land in the region as well as minimizing the impact of storm water contaminants on ground water resources. Planning should contemplate integration of this system into the regional open space network.

Existing creeks (Bear Creek, Fahrens Creek, Cottonwood Creek, and Black Rascal Creek) and associated floodways and floodplains may accommodate multiple uses including the provision of riparian habitat, stormwater management and groundwater recharge.

7.7 IMPLEMENTATION

Numerous Open Space, Conservation, and Recreation implementation measures have been detailed in the Goals, Policies and Actions section of this Chapter (Section 7.5). These implementing actions make up the “Action Program” required by Government Code Section 65564. Implementation is also achieved through the Open Space designations on the Land Use Diagram.

The acquisition of additional park land and open space will continue as development occurs through use of the City’s Park Dedication Ordinance, the required dedication of creekside open space, the payment of Park In-Lieu fees, and the Public Facilities Financing Plan.

By means of establishing development standards for lands designated as “Open Space,” the objectives of this chapter can be obtained. Through policies and standards for identifying new open space areas through the development review process, provisions have been made for the preservation of open space resource lands which may be needed at some future point in time.

7.8 CONCLUSION



The open space, conservation and recreation resources of Merced have played an important part in the quality of life for which the City is known. The City has chartered a solid course for the preservation and enhancement of those resources.

It is expected that, as a result of past and present efforts, decision makers contemplating the City’s future beyond the year 2030 will continue to have a broad array of open space resources with which to enrich the lives of the City’s residents.

