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# Resource Conservation and Resilience



## CHAPTER 7 OBJECTIVE

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**Objective RC-1:** Make efficient use of existing and future public infrastructure.

### IMPLEMENTING POLICIES

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- RC-1-a: Setting Service Standards**
- RC-1-b: Capital Improvement Program**
- RC-1-c: Prioritize Revenues**
- RC-1-d: Coordinate Public Construction**
- RC-1-e: Dig Once**
- RC-1-f: Telecommunications Strategy**
- RC-1-g: Grant Funding**
- RC-1-h: Public-Private Partnerships**



# Accomplishments:

- Wastewater is measured by capacity of sewer lines
  - Investment pursued when capacity gets to 80%
- Waster set and monitored to specific pressures throughout water system avoiding interruptions
- Waste is picked up as scheduled
- City maintains annual CIP for all City managed utilities
- City and County have monthly coordination meeting
- City hosts quarterly utilities meetings
- City partnered with Fresno Metropolitan Flood Control District (FMFCD) on water main rehab project in order to make improvements all at once in neighborhoods
- City has internal utilities coordination meetings with multiple departments
- Upgrades to City radio system to ensure services
- City is working with carriers on 5g implementation
- Master license agreement just approved (2020)
- City conducts cost study and charges conduit fees
  - Some carriers want to keep and use their own infrastructure
- RFQ developed to utilize excess fiber/conduits - still open for any carriers
- Information Services Department (ISD) partnership with Clovis Unified School District on Vast networks(CVIN) and fiber sharing/conduit sharing
  - Developing similar partnership with Fresno and Central Unified School District, and SCCCD

## Policies Referenced

- RC-1-a
- RC-1-b
- RC-1-c
- RC-1-d
- RC-1-e
- RC-1-f
- RC-1-g
- RC-1-h

## Policies Not Referenced



# Accomplishments:

- ISD continually seeks funding
- ISD worked with Department of Public Utilities on recycled water project to include conduits, built 15 miles of conduits:
  - Underneath highway 99 and High Speed Rail right of way
  - City infrastructure to the parks, community centers
- ISD invites carriers to be a part of projects to share cost burden
- FMFCD consistently coordinates projects with the City
- Joint-use agreement with FUSD
- DPU has partnered with private companies when possible:
  - T3 water storage facility
  - Downtown water conveyance system improvements
- FAX is exploring providing free Wifi for passengers along BRT corridor
- Fax is expanding services in areas with highest population densities, established neighborhoods, and Downtown Fresno
  - Title VI equity analysis requirements must be followed for service changes and fare changes
  - Implemented Bus Rapid Transit (BRT) corridor in 2018 along Blackstone, Kings Canyon, and into Downtown Fresno
- Short Range Transit Plan (SRTP), a Council of Governments document - updated every 2 years, contains performance standards, such as:
  - Minimum transit coverage, maximum headways, 7 days per week
  - On time performance
  - Bus cleanliness
  - Maintenance schedule/replacement

## Policies Referenced

- RC-1-a
- RC-1-b
- RC-1-c
- RC-1-d
- RC-1-e
- RC-1-f
- RC-1-g
- RC-1-h

## Policies Not Referenced



## CHAPTER 7 OBJECTIVE

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**Objective RC-2:** Promote land uses that conserve resources.

### IMPLEMENTING POLICIES

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**RC-2-a: Link Land Use to Transportation**

**RC-2-b: Provide Infrastructure for Mixed-Use and Infill**



# Accomplishments:

- Citywide Zoning Map Update (2016)
- Active Transportation Plan (2018)
- BRT System (2018)
- Fax 15 Service (2017)
- T4 facility constructed downtown to prepare for more development
- Improved transmission grid mains to improve circulation and service
- Continue to make expenditures to make the sewer system more viable
- Metro plan was on parallel path at the time of General Plan
- Southern Blackstone Smart Mobility Plan (2019)

## Policies Referenced

- RC-2-a
- RC-2-b

## Policies Not Referenced



## CHAPTER 7 OBJECTIVE

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**Objective RC-3:** Actively engage, listen to, educate, and enlist the support of the Fresno community on the need and strategies for resource conservation.

### IMPLEMENTING POLICIES

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**RC-3-a: Track Trends in Resource Consumption**

**RC-3-b: Community Outreach and Joint Solution  
Making**

**RC-3-c: Multi-Jurisdictional Efforts**



# Accomplishments:

- Water meters installed (2012)
  - Transitioned to volumetric rate for water supply
- City Water app for smart phones
- Regular state reporting
- Urban Water Management Plan (every 5 years)
- City has ongoing coordination with PG&E
- Fresno Irrigation District has annual reporting to the State

## Policies Referenced

- RC-3-a
- RC-3-b

## Policies Not Referenced

- RC-3-c



## CHAPTER 7 OBJECTIVE

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**Objective RC-4:** In cooperation with other jurisdictions and agencies in the San Joaquin Valley Air Basin, take necessary actions to achieve and maintain compliance with State and federal air quality standards for criteria pollutants.

### IMPLEMENTING POLICIES

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**RC-4-a: Support Regional Efforts**

**RC-4-b: Conditions of Approval**

**RC-4-c: Evaluate Impacts with Models**

**RC-4-d: Forward Information**

**RC-4-e: Support Employer-Based Efforts**

**RC-4-f: Municipal Operations and Fleet Actions**



## CHAPTER 7 OBJECTIVE

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**Objective RC-4:** In cooperation with other jurisdictions and agencies in the San Joaquin Valley Air Basin, take necessary actions to achieve and maintain compliance with State and federal air quality standards for criteria pollutants.

### IMPLEMENTING POLICIES

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**RC-4-g: FAX Actions**

**RC-4-h: Airport Actions**

**RC-4-i: Methane Capture**

**RC-4-j: All Departments**

**RC-4-k: Electric Vehicle Charging**



# Accomplishments:

- All entitlements are routed to the appropriate parties and relevant agencies
- BRT System (2018)
- San Joaquin Valley Air Pollution Control District (SJVAPCD) Incentive programs
- Active Participation in AB 617 implementation
- Departments evaluating potential long term remote work plan
  - 60% ISD staff telecommuting from home during the COVID 19 pandemic
- All solid waste vehicles use alternative fuel (CNG or LNG)
- FAX transitioning to CNG bus fleet to Zero Emission Vehicle (ZEV) fleet per Innovative Clean Technology regulations and mandated timelines including:
  - 25% of fleet purchases by 2023,
  - 50% by 2026
  - 100% by 2030
  - Full fleet as ZEV by 2040
- City installed digesters at wastewater treatment plant
  - Working with PG&E to sell gas generated
  - Ultra low-nox flare to burn off excess gas
- Solar panels and electric vehicle charging (Citywide EV pilot program)
  - Funding from Air District and CALEVIP
- Airports developed and implementing ground transportation strategies to reduce excessive vehicle usage use and avoid shuttling activities commonly found at larger airports
  - Enlarged dedicated cell phone waiting lot, completed in 2019 – avoids/reduces circling through the airport facility
  - Onsite location of new parking facilities (garage) – no shuttling necessary
  - New parking garage ready for construction (July 2020 start with November 2021 completion) – increased capacity reduces airport trips by 50%

## Policies Referenced

- RC-4-a
- RC-4-b
- RC-4-c
- RC-4-d
- RC-4-e
- RC-4-f
- RC-4-g
- RC-4-h
- RC-4-i
- RC-4-j
- RC-4-k

## Policies Not Referenced



# CHAPTER 7 OBJECTIVE

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**Objective RC-5:** In cooperation with other jurisdictions and agencies in the San Joaquin Valley Air Basin, take timely, necessary, and the most cost-effective actions to achieve and maintain reductions in greenhouse gas emissions and all strategies that reduce the causes of climate change in order to limit and prevent the related potential detrimental effects upon public health and welfare of present and future residents of the Fresno community.

## IMPLEMENTING POLICIES

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**RC-5-a: Support State Goal to Reduce Statewide GHG Emissions**

**RC-5-b: Greenhouse Gas Reduction Plan**

**RC-5-c: GHG Reduction through Design and Operations**

**RC-5-d: SCS and CAP Conformity Analysis**

**RC-5-e: Ensure Compliance**

**RC-5-f: Toolkit**

**RC-5-g: Evaluate Impacts with Models**



# Accomplishments:

- City works closely with Fresno GOG
- General Plan PEIR (ongoing)
- VMT policy (ongoing)
- Departments evaluating potential long term remote work plan
  - 60% ISD staff telecommuting from home during the COVID 19 pandemic
- Northeast surface water treatment facility
  - Pipeline from Friant Kern canal that uses gravity, rather than electricity - southeast pipeline from river to use similar method
- 20 Megawatts solar projects being developed at wastewater treatment plants
- CEQA requirements for all entitlements
- FAX installing solar panels above bus bays at Municipal Service Center yard and the FAX Administration building
  - FAX adding 200 solar lights at bus stops across the city.
- All solid waste vehicles use alternative fuel (CNG or LNG)
- FAX transitioning to CNG bus fleet to Zero Emission Vehicle (ZEV) fleet per Innovative Clean Technology regulations and mandated timelines including:
  - 25% of fleet purchases by 2023,
  - 50% by 2026
  - 100% by 2030
  - Full fleet as ZEV by 2040

## Policies Referenced

- RC-5-a
- RC-5-b
- RC-5-c
- RC-5-e
- RC-5-g

## Policies Not Referenced

- RC-5-d
- RC-5-f



## CHAPTER 7 OBJECTIVE

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**Objective RC-6:** Ensure that Fresno has a reliable, long-range source of drinkable water.

### IMPLEMENTING POLICIES

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**RC-6-a: Regional Efforts**

**RC-6-b: Water Plans**

**RC-6-c: Land Use and Development Compliance**

**RC-6-d: Recycled Water**

**RC-6-e: Protect Aquifer**

**RC-6-f: Regulate Sewage Disposal Facilities**



## CHAPTER 7 OBJECTIVE

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**Objective RC-6:** Ensure that Fresno has a reliable, long-range source of drinkable water.

### IMPLEMENTING POLICIES

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**RC-6-g: Protect Recharge Areas**

**RC-6-h: Conditions of Approval**

**RC-6-i: Natural Recharge**



# Accomplishments:

- Upper Kings Basin Integrated Regional Water Management Plan updated – still needs to be adopted
- Collaboration with members of Groundwater Sustainability agency
- All entitlements are routed to the appropriate parties and relevant agencies and appropriate conditions applied
- City of Fresno Recycled Water Master Plan (2015)
- Most large canals are lined with open bottom to allow for recharge.
  - Canals are lined only when necessary for maintenance and integrity issues.
  - Canals small enough to be conveyed in a 54” pipe or smaller are piped for public safety

## Policies Referenced

- RC-6-a
- RC-6-c
- RC-6-d
- RC-6-g
- RC-6-h
- RC-6-i

## Policies Not Referenced

- RC-6-b
- RC-6-e
- RC-6-f
- RC-6-g



## CHAPTER 7 OBJECTIVE

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**Objective RC-7:** Promote water conservation through standards, incentives and capital investments.

### IMPLEMENTING POLICIES

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**RC-7-a: Water Conservation Program Target**

**RC-7-b: Water Pricing and Metering**

**RC-7-c: Best Practices for Conservation**

**RC-7-d: Update Standards for New Development**

**RC-7-e: Retrofit City Facilities, and Consider Incentives Programs to Encourage Retrofitting of Other Existing Public and Private Residential and Non-Residential Facilities and Sites**



## CHAPTER 7 OBJECTIVE

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**Objective RC-7:** Promote water conservation through standards, incentives and capital investments.

### IMPLEMENTING POLICIES

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**RC-7-f: Implementation and Update Conservation Program**

**RC-7-g: Educate on State Requirements**

**RC-7-h: Landscape Water Conservation Standards**

**RC-7-i: PACE Financing**



# Accomplishments:

- Water meters installed (2012)
  - Volumetric water rates - tiered rates will be analyzed during the next rate planning effort.
- 2020 Gallons Per Capita Per Day target met - new targets will be defined in the 2020 Urban Water Management Plan (UWMP)
- Conservation programs are ongoing and routinely updated meet customer need - water Conservation Ordinance in FMC was updated in 2019.
- Visually inspections for water wasting
- Yearly Outdoor Water Use Schedule
- Water Conservation measures identified in the Municipal Code (updated 2019)
- Application of California Green Building Code and Model Water Efficient Landscape Ordinance
- All new City facilities and retrofits incorporate water wise landscaping to achieve a reduction in outdoor water use
  - Current efforts include retrofits to reduce the spread of COVID-19
- Education efforts are incorporated into the Water Conservation Program to attain water conservation goals outlined in the City's UWMP
- The Department of Public Utilities works with the Planning and Development Department to apply water conservation standards to all new development proposed in the City
  - Standards include CA Green Building Code and State Model Water Efficient Landscape Ordinance.

## Policies Referenced

- RC-7-a
- RC-7-b
- RC-7-c
- RC-7-d
- RC-7-e
- RC-7-f
- RC-7-g
- RC-7-h

## Policies Not Referenced

- RC-7-i



## CHAPTER 7 OBJECTIVE

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**Objective RC-8:** Reduce the consumption of non-renewable energy resources by requiring and encouraging conservation measures and the use of alternative energy sources.

### IMPLEMENTING POLICIES

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**RC-8-a: Existing Standards and Programs**

**RC-8-b: Energy Reduction Targets**

**RC-8-c: Energy Conservation in New Development**

**RC-8-d: Incentives**

**RC-8-e: Energy Use Disclosure**

**RC-8-f: City Heating and Cooling**



## CHAPTER 7 OBJECTIVE

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**Objective RC-8:** Reduce the consumption of non-renewable energy resources by requiring and encouraging conservation measures and the use of alternative energy sources.

### IMPLEMENTING POLICIES

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**RC-8-g: Revolving Energy Fund**

**RC-8-h: Solar Assistance**

**RC-8-i: Renewable Target**

**RC-8-j: Alternative Fuel Network**

**RC-8-k: Energy Efficiency Education**



# Accomplishments:

- Coordinating with the City's Electric Utility (PG&E)
  - The goal of reducing energy use in both the residential and non-residential segments continues to evolve and report progress
- The City is currently in compliance with CA AB 802
  - Requires the energy usage reporting of all large facilities meeting the states reporting criteria
- City has made progress in reducing kWh and GHG by:
  - Converting City Streetlights and Parking Garages to LED,
  - Comprehensive Energy reduction projects and City Hall and the MSC
  - The City is actively working on more projects citywide
- The City has worked to improve their permitting process for solar installations which has increased the number of solar installations throughout the City
- The City has increased the number of City owned facilities utilizing renewable energy (solar, biogas & gravity) with plans to become more aggressive going forward
- The City has installed over 40 EV Chargers throughout facilities
  - The Airport is implementing up to 87 additional Network Charges with a pilot program citywide
- The City of Fresno Partnered with PG&E to implement the Fresno Energywatch program which educated constituents on the importance and value of being energy efficient

## Policies Referenced

- RC-8-a
- RC-8-b
- RC-8-e
- RC-8-f
- RC-8-g
- RC-8-h
- RC-8-i
- RC-8-j
- RC-8-k

## Policies Not Referenced

- RC-8-c
- RC-8-d



## CHAPTER 7 OBJECTIVE

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**Objective RC-9:** Preserve agricultural land outside of the area planned for urbanization under this General Plan.

### IMPLEMENTING POLICIES

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**RC-9-a: Regional Cooperation**

**RC-9-b: Unincorporated Land in the Planning Area**

**RC-9-c: Farmland Preservation Program**



# Accomplishments:

- Fresno, Clovis, Madera County, and Fresno County meet and coordinate on a variety of issues
- SOI Boundary Held (2013)
- Growth Areas Identified (2014)
- Citywide Development Code (2015)
- Citywide Zoning Map Update (2016)
- Specific Plan of the West Area (ongoing)

## Policies Referenced

- RC-9-a
- RC-9-b
- RC-9-c

## Policies Not Referenced

- RC-9-c



## CHAPTER 7 OBJECTIVE

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**Objective RC-10:** Conserve aggregate mineral resources within the Planning Area, as identified by the Division of Mines and Geology, and allow for responsible extraction to meet Fresno's needs.

### IMPLEMENTING POLICIES

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**RC-10-a: Meet Future Needs**

**RC-10-b: Zoning in San Joaquin Riverbottom**

**RC-10-c: Processing-Mining Link**

**RC-10-d: Manage MRZ-2 Areas**

**RC-10-e: Existing Permits**

**RC-10-f: Cooperate on Uniform Criteria**



# Accomplishments:

- Citywide Zoning Map Update (2016)
  - Which includes Mining Overlay District
- Application and Operation Standards for surface mining and reclamation activities in Fresno Municipal Code
- Fresno, Clovis, Madera County, and Fresno County meet and coordinate on a variety of issues

## Policies Referenced

- RC-10-a
- RC-10-b
- RC-10-c
- RC-10-d
- RC-10-e
- RC-10-f

## Policies Not Referenced



## CHAPTER 7 OBJECTIVE

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**Objective RC-11:** Strive to reduce the solid waste going to landfills to zero by 2035.

### IMPLEMENTING POLICIES

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**RC-11-a: Waste Reduction Strategies**

**RC-11-b: Zero Waste Strategy**

**RC-11-c: Industry Efforts**



# Accomplishments:

- All residential development is required to participate in recyclable material collection and storage
- Solid waste and recycling material collection and storage is reviewed during the entitlement phase to establish the appropriate size and recycling areas based upon anticipated volume of material generated
- Continue to work with AB939 MOU partners to educate community on hazardous material - Relocation of facility to the Fresno area Spring of 2022 is underway
- Mandatory recycling ordinance, recycling and organics diversion are conditions of Franchise agreements (2011)
- Waste audits, recycling audits, and driver tagging systems used to identify contamination in loads
  - Recycling coordinators for both franchise haulers to do large unit and commercial outreach
  - Residential outreach done by city teams
- Yearly meetings with CalRecycle and Franchise haulers to identify missed opportunities and goals achieved
- Franchise haulers are actively engaged in organics recycling as part of their contract requirements
- Solid waste trucks currently run on liquid natural gas (LNG) as a low emission clean air collection fleet
- The city is looking at composting programs in conjunction with the 2019 Biosolids Master Plan
- Through the use of the city's recycle hotline we educate the public on programs designed to reduce wastes going to landfill such as Bye Bye Mattress, carpet recycling, electronic recycling, and other regional programs
  - The city has not met it's 75% goal to date

## Policies Referenced

- RC-11-a
- RC-11-b
- RC-11-b

## Policies Not Referenced

