

# **Public Works Department**

## **Quarterly Report**

# Public Works Department Divisions

- Engineering
- Streets
- Fleet
- Wastewater
- Transit



# Engineering Division

- Engineering activities include planning, estimating, design, preparation of bid documents, project management, final map & plan checks, inspections, and acting as liaison with Kern COG, KC Community Development and Caltrans.
- Current Activities include the oversight of the Corp Yard construction, the Bus Garage, and the Wal-Mart project; supervision of the multiple street projects; and coordination in the preparation of grant applications.

# Streets Division

- The street division provides maintenance, repair and street sweeping services for 262 curb miles of streets. This includes repair of infrastructure such as curbs, gutters, sidewalks, drainage systems, signs, striping, and painting.
- Presently it is preparing to begin the 2016 Paving season. Activities will include prepping the streets for micro surfacing, slurry sealing, pot hole patching , and crack filling.

# Street Maintenance

- A Range of Treatments
  - Preservation
  - Reconstruction
- Funding varies with Type of Treatment
- L\$ for Preservation
- TAB\$ for Resurfacing
- Program \$ for CIP

# PMS Mandate

- Section 116 of Title 23, **United States Code** (U.S.C.) states that the State Transportation Department (**Caltrans**) is **responsible for maintaining** or causing to be maintained, any project constructed with federal-aid funds and all bridges carrying federal-aid routes.
- **Responsibility** for maintaining local federal-aid projects is **passed on to the local agency** as stated in the “Local Agency-State Master Agreement”

# Why Pavement Preservation

**"Pavement preservation represents a proactive approach to maintaining our existing roadways and highways. It enables a transportation agency to reduce costly, time consuming rehabilitation and reconstruction projects and the associated traffic disruptions. With timely preservation the City can provide the traveling public with improved safety and mobility, reduced congestion, and smoother, longer lasting pavements."**

Source: FHWA

Memorandum on Pavement Preservation Definitions

# PMS Procedure

- ⦿ PMS Study
- ⦿ Matrix Evaluation
- ⦿ Categorize Streets
- ⦿ Assign Strategies
- ⦿ Determine Costs
- ⦿ Compare Available Funding
- ⦿ Rank Projects per Category

# Purpose of PMS

Justifies different funding level requests.

- Provides information to make efficient use of available resources.
- Produces quantified and accurate information.
- Tracks pavement performance.
- Identifies current and future maintenance & rehabilitation (M&R) needs.
- Selects cost-effective repair strategies.
- Predicts future pavement condition based on different budget scenarios

# Preservation

- ⦿ **Preservation: Maintenance**
- ⦿ Stopping problems before they grow
- ⦿ Maximizing the life of the pavement structure by PROTECTING it.
- ⦿ Regular applications of preservation methods
- ⦿ Quality Assurance systems
- ⦿ PMS systems
- ⦿ NOT WORST FIRST!!!!!!

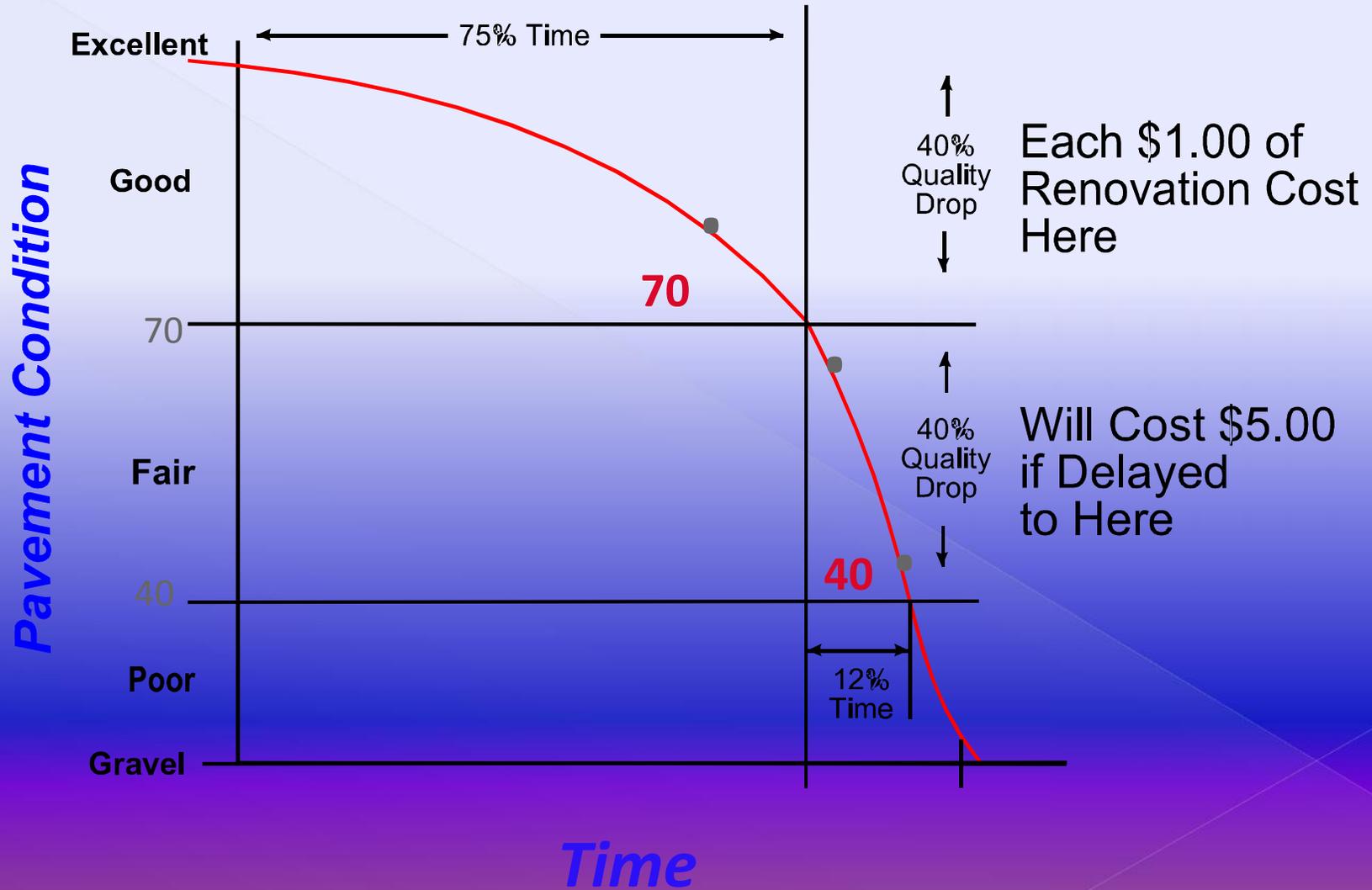
\_\_\_\_ PAVEMENT MANAGEMENT SYSTEM

PRIORITY MATRIX

PCI \ ADT	>=70	>=40 & <70	<40	TOTAL MILES
>=5000	<b>1</b>	<b>3</b>	<b>6</b>	
<5000 & >=3500	<b>2</b>	<b>5</b>	<b>9</b>	
<3500 & >=1000	<b>4</b>	<b>8</b>	<b>10</b>	
<1000 & >=100	<b>7</b>	<b>11</b>	<b>12</b>	
<100	<b>13</b>	<b>14</b>	<b>15</b>	
TOTAL MILES				

PCC  
GRAVEL  
TOTAL

# Pavement Life Curve



# Maintenance Methods

- ⦿ Pothole Repairs
- ⦿ Crack Sealing
- ⦿ Slurry Sealing
- ⦿ Sand Sealing
- ⦿ Chip Sealing
- ⦿ Overlays
- ⦿ Resurfacing
- ⦿ Reconstruction

# Alternative Method

## Microsurfacing – What is it?

- Slurry Seal was expanded upon in the late 1960's and early 1970's in an attempt to use slurry in thicker applications that could be applied in narrow courses in wheel ruts to avoid not having to replace expensive traffic delineation on the autobahns.
- High quality aggregates and advanced emulsions were incorporated
- A stable product when applied in multi-stone thickness resulted.
- Can be applied in multi-layer
- Not Proprietary

## Micro-surfacing -purpose

- An Alternative to thin hot- mix overlays for rut filling( high traffic loads)
- Mat has structural strength properties similar to hot mix
- Good long-term wear properties and macro-texture for skid resistance
- Fast return of Traffic
- Night time applications

## Where to use Micro-Surfacing Treatments

- Surface Treatments For High Volume Collectors And Arterials As Well As Highways
- Rut Filling Applications
- Double Applications For Addressing Surface Irregularities
- Night Work
- Areas Where Fast Traffic Times Are Of Concern
- Concrete Bridge Decks
- Airports

# Mixing Sequence

## Micro-Surfacing Application



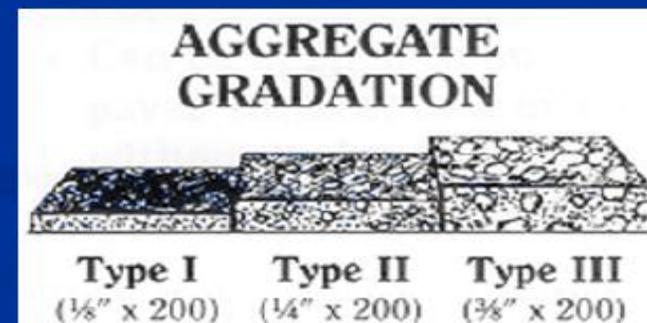
# Slurry Seal and Microsurfacing Systems

Gradation Sizes

Type - 1

Type - 2

Type - 3



# Early 20<sup>th</sup> Century Seal Coat



## **An Innovation: 1930'- 1950's**



# 1960's Slurry Seal



# 21<sup>st</sup> Century truck mounted machines



## ROADWAYS

Pavement Preservation technique as demonstrated by a Micro-surfacing process approved by Caltrans. This technique was used on Downs Street from South China Lake Boulevard to Upjohn Avenue.



**T  
A  
B**

- In the paving season of 2016 it is estimated that Tax Allocation Bonds will provide paving to another 73 lane miles of roadway in our community.

**M  
E  
A  
S  
U  
R  
E  
L**

- In the paving season of 2016 Measure L Tax Dollars will be used in the Pavement Preservation or Street Maintenance process to preserve 127 lane miles of roadway in our community.

**TENTATIVE PAVEMENT PRESERVATION  
(MAINTENANCE)**

**Pavement Preservation (Maintenance) Spring and Fall 2016**

Street Name	To	From
1) Inyo Street	Ward Ave	Graaf Ave
2) Inyo Street	Hermosa Ave	Ward
3) Kinnett Ave	Inyo Street	Downs St
4) Mamie Ave	Sierra View Ave	Randall
5) Bryann Circle	Mamie Ave	Cul-de-sac
6) Fendrick Circle	Mamie Ave	Cul-de-sac
7) Scott Circle	Mamie Ave	Cul-de-sac
8) Lorene Ct	Cul-de-sac	Mary Street
9) Marlene Ct	Cul-de-sac	Mary Street
10) Benson Ave	Gemstone St	Silver Ridge St
11) Gemstone St	Benson Ave	Hayden Ave
12) Hayden Ave	Gemstone St	Silver Ridge St
13) Gateway Blvd	Upjohn Ave	Church Ave
14) Sunland	E. Ridgecrest	Apache Ave
15) Sunland	Apache Ave	Cul-de-sac

**PROPOSED STREETS FOR PAVING  
FISCAL YEAR 2016-2017**

**CAPITAL IMPROVEMENT**

Street Name	To	From
1) Silver Ridge Street	Upjohn Avenue	Radar Avenue
2) Sanders Street	Upjohn Avenue	Boston Avenue
3) Sierra View Street	Ward Avenue	Inyokern Road
4) Sierra View Street	Mary Anne Street	Mamie Avenue
5) Sierra View Street	Sydnor Avenue	Ward Avenue
6) Vicki Avenue	Carolyn Street	Downs Street
7) Vicki Avenue	Downs Street	Randall Street
8) Wayne Street	Ward Avenue	Graaf Avenue
9) Chesapeake Street	Rader Avenue	to Barricade
10) Lakeland Street	Cardigan Avenue	to Barricade
11) Cardigan Avenue	Chesapeake Street	Silver Ridge Street
Alice Avenue plus		
12) Sherri Ave	Peg Street	end of Cul-de-sac
13) Mamie Avenue	Sierra View Street	Sherri Street

# FTIP Programmed Projects

## > HSIP

- HSIP Project, Traffic signal at Bowman Rd. and China Lake Blvd.
  - Project awarded to A-C Electric
  - Contractor authorized to purchase equipment
- HSIP Project, Drummond Ave. widening, between Inyo St. and Downs St.
  - Ready to bid, E-76 issued
- HSIP Project, Systemic Safety Analysis Report Program, (SSARP).
  - Staff submitted grant application on March 24<sup>th</sup>
- HSIP Project, CalTrans call for Projects
  - Call for projects expected April 15<sup>th</sup>.
  - Council award to David Evans & Assoc. for HSIP application scheduled for April 6<sup>th</sup>.

# FTIP Programmed Projects

## CMAQ

### > CMAQ

- CMAQ Project, Traffic signal synchronization between Ridgecrest Blvd. & College Hts.
  - Project awarded to DBX.
- CMAQ Project, N. Warner Street – Drummond Avenue to West Howell Avenue
  - Design complete
  - Right of Way Acquired
  - Project ready to submit for Request for Authorization
- CMAQ Project, South Graaf Street – North Sierra View to Norma Ave.
  - Request for Authorization to construct submitted to CalTrans
- CMAQ Project, South Sunland Street – Bowman Road to Dolphin Ave.
  - Project just made Draft 2016 FTIP
- CMAQ Project, CalTrans call for projects
  - Council to award to Quad Knopf for CMAQ application scheduled for April 6<sup>th</sup>.

# FTIP Programmed Projects

## > RSTP

- RSTP Project, S. China Lake Blvd. overlay, Bowman Rd. to past College Hts. Blvd.
  - Ready to Bid, E-76 issued
- RSTP Project, East side of S. Downs- Ridgecrest Blvd. to Upjohn Ave.
  - Just made 2016 Draft FTIP
- RSTP Project, CalTrans call for projects
  - Council to award to Quad Knopf for RSTP application scheduled for April 6<sup>th</sup>.

## > ATP

- ATP Project, CalTrans call for projects
  - Council to award to Quad Knopf for ATP application scheduled for April 6<sup>th</sup>.

# CDBG & TDA Projects

- CDBG, (HUD), Other Federally funded projects,
  - > CDBG Project, 15 ADA Ramps
    - Plans and Specification near completion
    - Out to bid this summer
  - > CDBG Project, Senior Center
    - Engineering Staff to assist in Consultant RFP preparation
  - > CDBG Project, ADA Transition Plan and Ramp Design & Construction
    - Contract between County and City to City Council for approval.
  - > CDBG Project, Senior Center Parking Lot,
    - Waiting on County Process.
  - > TDA Project, Richmond Bike Path
    - Design near final.
    - Out to bid this summer

# Fleet Division

This division services, maintains and repairs over one hundred city owned vehicles and motorized equipment. The vehicles include the city's fleet of cars, as well as, the transit busses. In addition, maintenance is performed on most city equipment including the equipment used by the Parks & Recreation Department and the Streets Division.

# Facilities Construction Update

- ⦿ Facilities Construction
- ⦿ Bus Garage / City yard improvements
  - > Under Construction
- ⦿ Bus Transfer Station
  - > Property Purchased.
  - > In Design.

# Wastewater Division

- The wastewater division operates and maintains the sewage collection system and treatment facility in accordance with health and safety laws and compliance directives issued by the California Water Quality Control Board, Lahontan Region.

# Wastewater Annual Report

**The City of Ridgecrest Consolidated Treatment Facility operated within design and compliance directives issued under Board Order 6-00-56 and Board Order 6-93-86**

**The City of Ridgecrest WWTF processed 794.104 million gallons of primary influent and operated at 60% of rated design capacity.**

**The department as compliance with the Sanitary Sewer Overflow Program under the S.S.M.P. hydro flushed 33,498 ft. of main line sanitary sewer as preventative maintenance in 2015.**

**Also as SSMP/SSO compliance the City of Ridgecrest has retained the firm of Houston & Harris to perform CCTV on the sanitary sewer system in its entirety and rate defects for repair or replacement according to PACP Standards.**

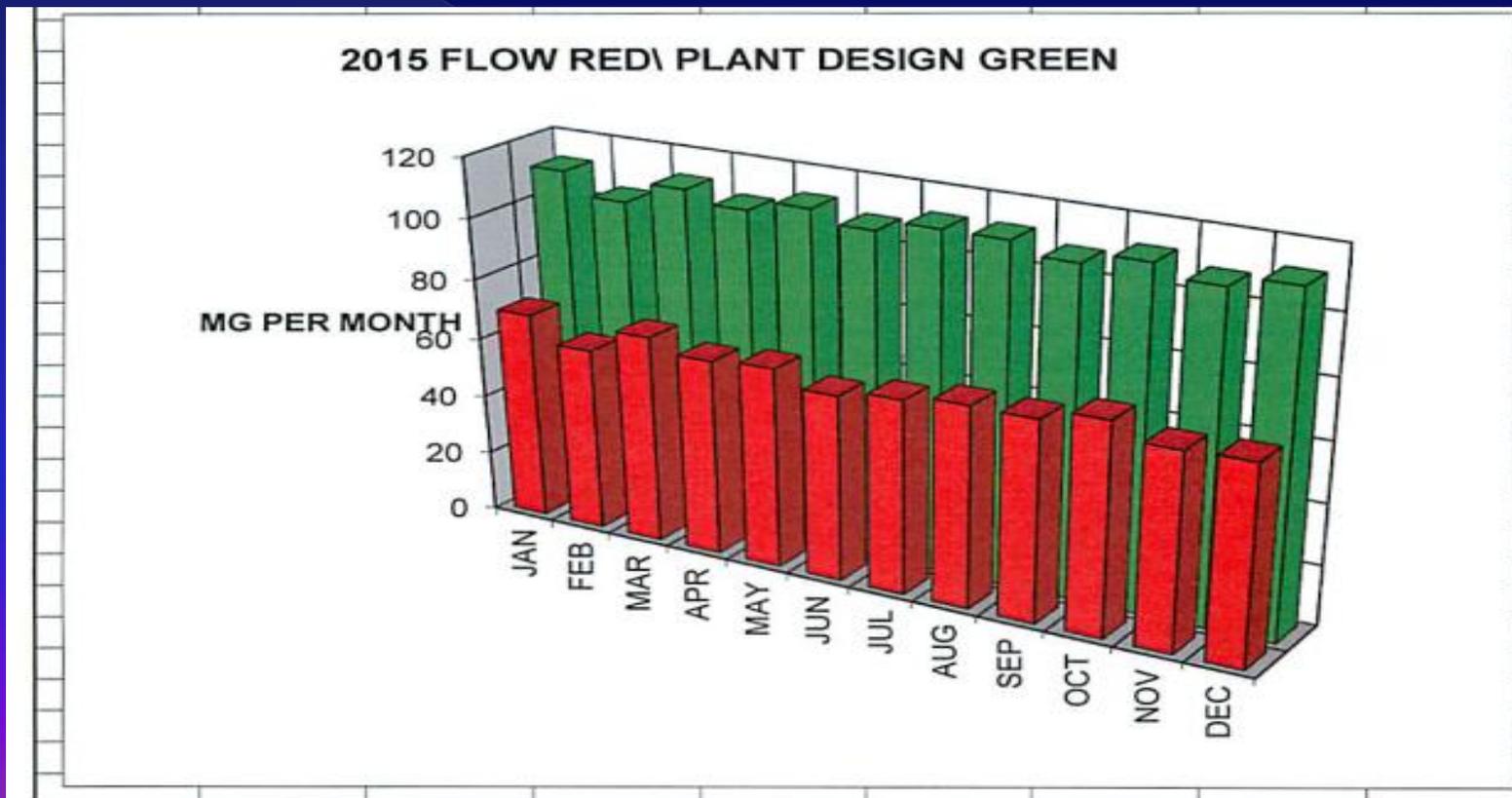
**The City of Ridgecrest as part of the Pre Treatment regulations is monitoring all septic dumpers, and is working with the Navy on compliance issues related to the waste stream generated from Naval Operations and Programs.**

**The Reclamation Department reclaimed 60.48 million gallons of secondary effluent for use as fodder crop irrigation.**

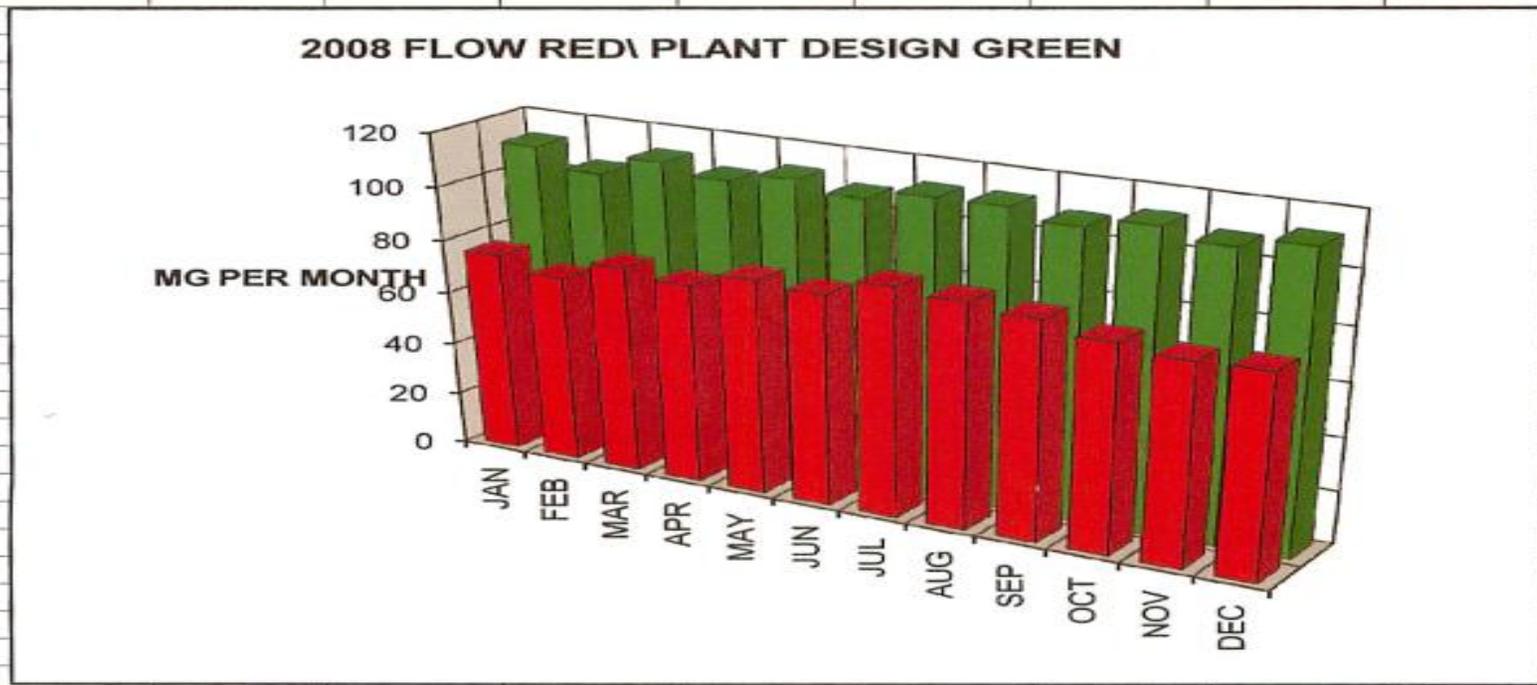
# Wastewater Annual Report

	Plant Influent - v - Rated Design Capacity				
	2015	DESIGN	% Cap.		
JAN	69.841	111.6	63%		
FEB	61.415	104.4	59%		
MAR	69.627	111.6	62%		
APR	65.46	108	61%		
MAY	66.807	111.6	60%		
JUN	61.811	108	57%		
JUL	64.438	111.6	58.00%		
AUG	66.739	111.6	60%		
SEP	66.567	108	62%		
OCT	70.339	111.6	63%		
NOV	65.247	108	60%		
DEC	65.843	111.6	59%		
<b>TOTAL</b>	<b>794.134</b>	<b>1317.6</b>			

# Wastewater Annual Report



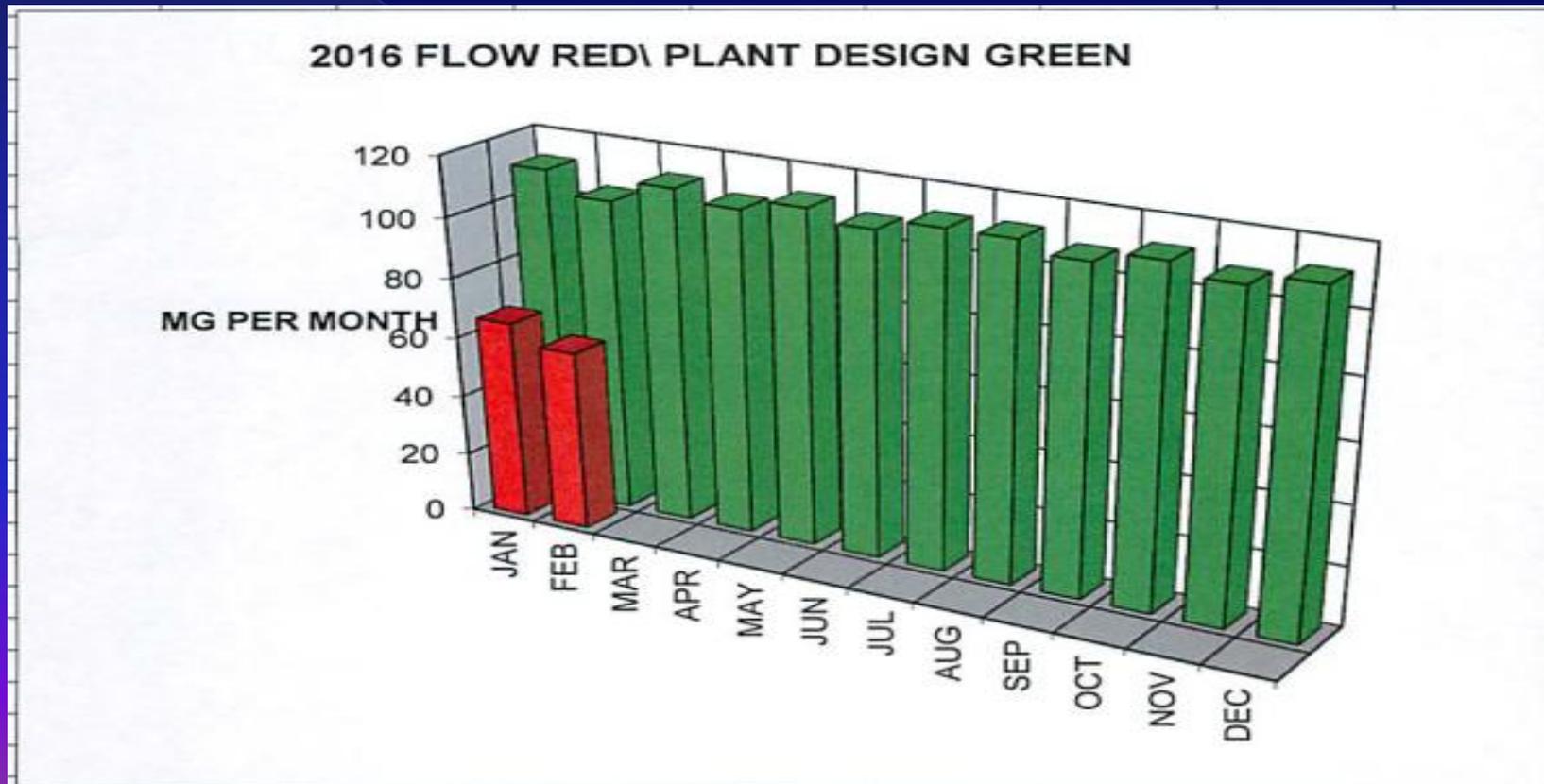
<b>Plant Influent - v - Rated Design Capacity</b>			
	<b>2008</b>	<b>DESIGN</b>	<b>% Cap.</b>
JAN	76.079	111.6	68%
FEB	70.676	104.4	67%
MAR	78.183	111.6	70%
APR	75.397	108	70%
MAY	80.943	111.6	73%
JUN	79.397	108	73%
JUL	85.949	111.6	77.00%
AUG	84.407	111.6	76%
SEP	82.11	108	76%
OCT	78.054	111.6	70%
NOV	75.467	108	70%
DEC	76.009	111.6	68%
<b>TOTAL</b>	<b>942.671</b>	<b>1317.6</b>	



# Wastewater Monthly Report

	Plant Influent - v - Rated Design Capacity				
	2016	DESIGN	% Cap.		
JAN	66.386	111.6	59%		
FEB	60.104	104.4	58%		
MAR		111.6			
APR		108			
MAY		111.6			
JUN		108			
JUL		111.6			
AUG		111.6			
SEP		108			
OCT		111.6			
NOV		108			
DEC		111.6			
TOTAL	126.49	1317.6			

# Wastewater Monthly Report

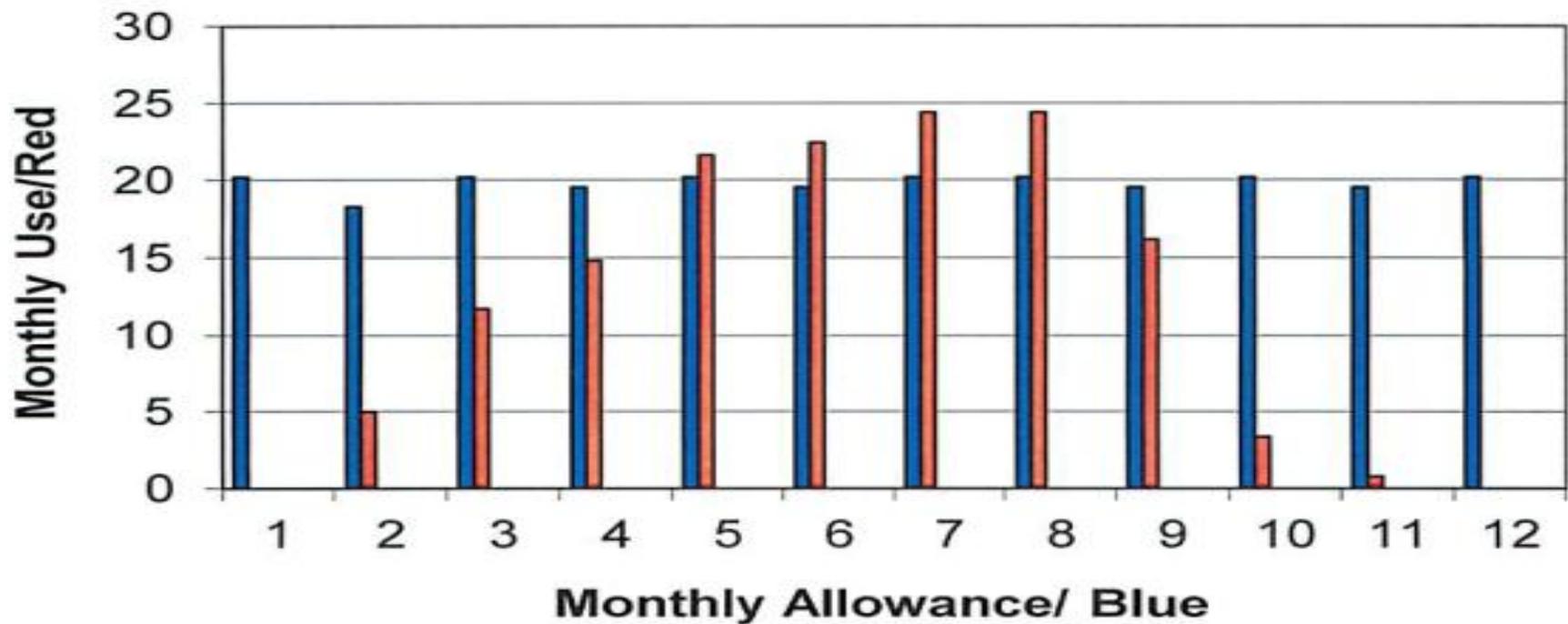


# Wastewater Annual Report

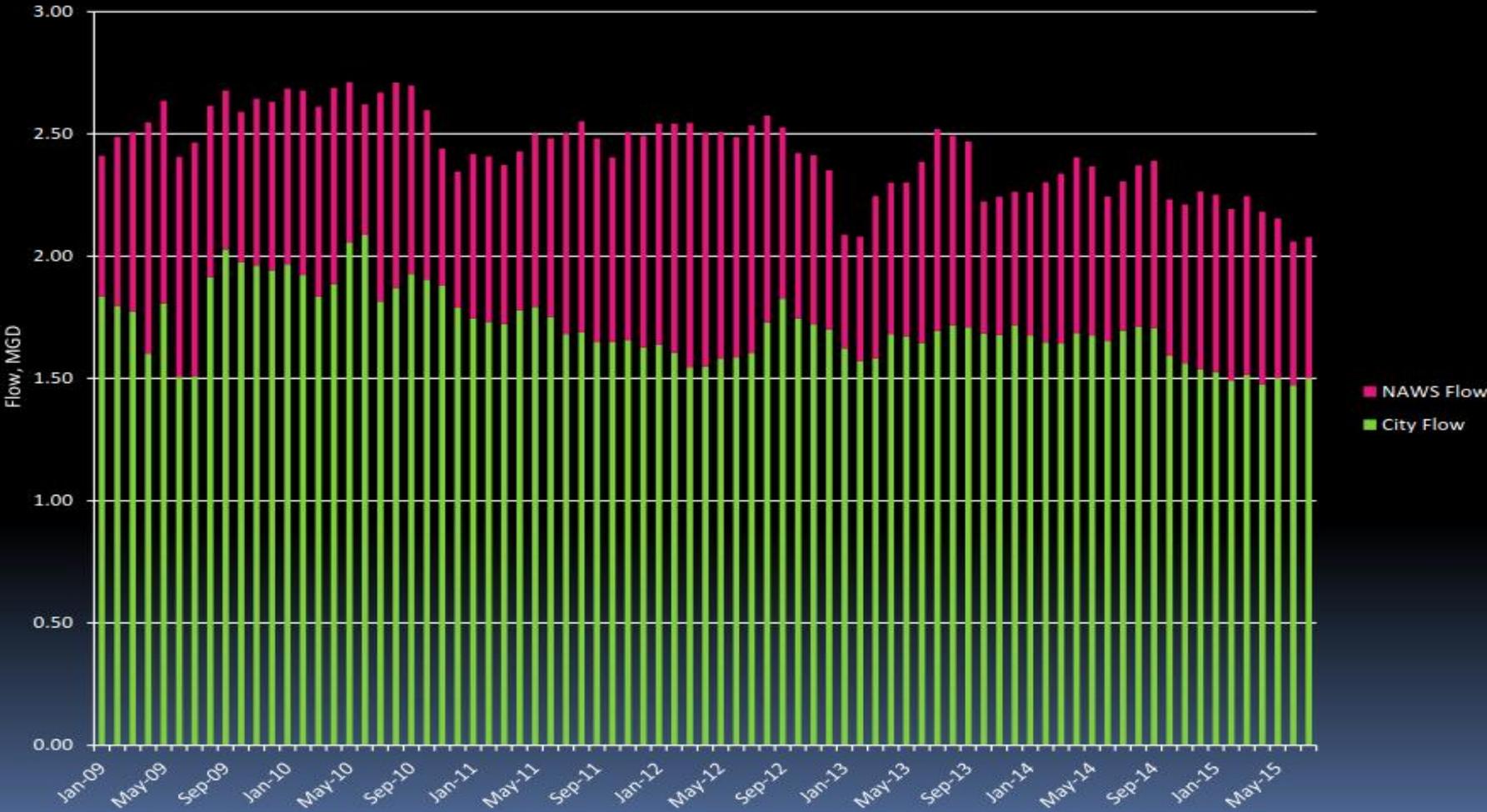
20.212	0	Golf Course Use / Monthly Allowed Use				In Million Gallons	2015
18.256	5.015						
20.212	11.728						
19.56	14.825						
20.212	21.634						
19.56	22.448						
20.212	24.423						
20.212	24.423						
19.56	16.159						
20.212	3.357						
19.56	0.812						
20.212	0						

# Wastewater Annual Report

## Navy Golf Course Use



# Average Daily Flow by Month



# New WWTF Project Scope

- Prepare Facilities Plan for New WWTP
- Evaluate Two Site Alternatives:
  - New WWTP at China Lake NAWS Site
  - New WWTP at City Site
- Prepare Preliminary Plans
- Prepare EIR Considering Both Sites
- Prepare Financial Studies

# Recommended Treatment Plant:

- New WWTP to Replace the Present Facility
- 3.6 mgd (5.4 future) Located at NAWIS Site
- Oxidation Ditch Activated Sludge Process
- Disposal:
  - Golf Course Irrigation (exist) – 500 AF/yr (current)  
750 AF/yr (allocated)
  - Alfalfa Irrigation (exist) – 260 AF/yr
  - Disposal Ponds (exist + new) – 3,022 AF/yr
  - Recycle water - TBD
- Develop Recycled Water Plan

# Schedule

- Preliminary Site Selection
  - After EIR Review
- Authorize Final Design
  - June 2016
- Submit CWSRF Application
  - March 2016

# Schedule

- Certify EIR
  - Spring 2016
- Prepare Report of Waste Discharge
  - After Site Selection
- Complete Final Design
  - June 2017

# Schedule

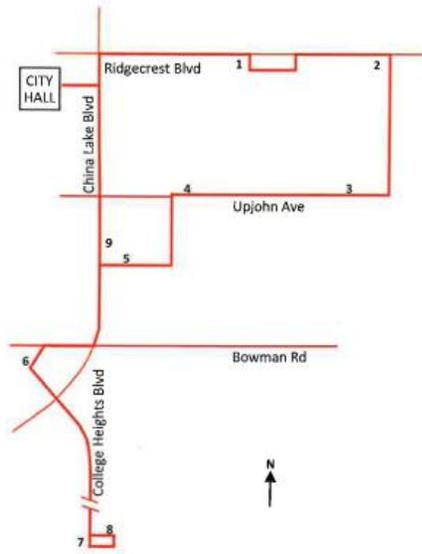
- Receive Bids
  - November 2017
- Construction Start
  - January 2018
- Complete Construction
  - December 2019

# TRANSIT DIVISION

- The Transit Division operates a deviated fixed route transit system within Ridgecrest and the surrounding areas. The main funding source for Ridgecrest's transit comes from the State Transportation Development Act, the State Transit Assistance Program, FTA Grants, and a small share from passenger fares.



<b>(July – February) Total Transit Trip</b>				
Coyote	Roadrunner	Rattlesnake	Mid-Day Express	County Contract
3391	1788	1822	706	1193
<b>NOTE: Numbers reflect all Transit Trips i.e. Cash, Punch Passes, Monthly, Free, Attendant or Transfer Rides</b>			<b>TOTAL = 8900</b>	
Average monthly Transit trips are 1112 riders				
**** Please Note – the numbers reflect how many trips over the timeframe not how many riders				

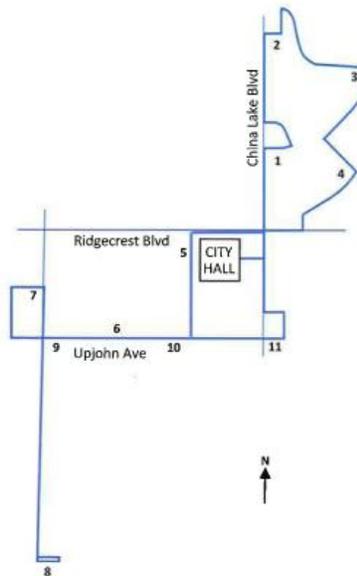


## Coyote L1

Hours of Operation 7—11 AM and 1—5 PM

Stop Times (minutes) are approximate

City Hall (Transfer) :00	6 Wal-Mart :25
1 Eastridge Market :04	7 Cerro Coso Day Care :30
2 Minit Shop :08	8 Cerro Coso Main :35
3 Upjohn/Gateway :12	9 China Lake/Bowling Alley :42
4 Upjohn Park :16	City Hall (Transfer) :50
5 Rader/Bowling Alley :20	

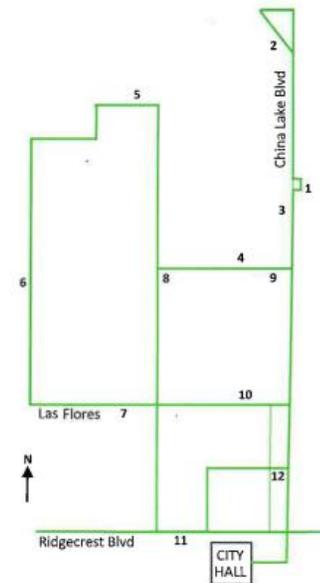


## Roadrunner L2

Hours of Operation 7—11 AM and 1—5 PM

Stop Times (minutes) are approximate

City Hall (Transfer) :00	7 Senior Condos :32
1 Post Office :07	8 Dolphin/Downs :36
2 Big Lots :15	9 Howards' Mini Mart :39
3 Drummond/French :18	10 Upjohn/Norma (E) :43
4 La Mirage :22	11 SCE :46
5 Eagles :25	City Hall (Transfer) :50
6 Upjohn/Norma (W) :29	



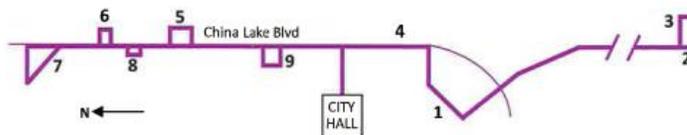
## Rattlesnake L3

Hours of Operation 7—11 AM and 1—5 PM

Stop Times (minutes) are approximate

City Hall (Transfer) :00	7 Las Flores/Sierra View :29
1 Red Bowl :04	8 Norma/Howell :32
2 Pizza Factory :09	9 Walgreens :36
3 Hospital :15	10 Home Depot :39
4 900 Heritage :18	11 Dart Thrift Store :43
5 Pony Expresso :22	12 French/Balsam :46
6 829 Downs :25	City Hall (Transfer) :50

## Mid-Day Express L5



## Mid-Day Express L5

Hours of Operation 11 AM and 12 PM

City Hall (TRANSFER) :00	6 Red Bowl :30
1 Wal-Mart :05	7 Pizza Factory :35
2 Cerro Coso College D/C :10	8 Hospital :40
3 Cerro Coso College :15	9 French/Balsam :45
4 China Lake/Bowling Alley :20	City Hall (TRANSFER) :50
5 Big Lots :25	

Stop Times (minutes) are approximate

# **Ridgerunner Transit Division Update Report (July-Feb 2016)**

- The Transit Division is busy with daily operations in addition to managing nine grant projects. Below is a list of current grants and their **status**:
- **Public Transportation Modernization, Improvement and Service Enhancement Program (PTMISEA) Grants**
  - ❖ (PTMISEA) Maintenance Facility Project - \$830k- funds received  
Contract awarded and project in progress
  - ❖ (PTMISEA) Hub Transfer Station Project - \$300k- funds received  
Property in Inyokern purchased and project plans and strategies in progress
  - ❖ (PTMISEA) Corporation Yard Security Enhancement Project - \$11,055- funds received  
Project to replace west gate- Contract awarded and project in progress
  - ❖ (PTMISEA) Purchase of Two Gasoline buses – \$193,510- funds received
  - ❖ Vendor selected from State Procurement List- Quotes received and PO in progress
  - ❖ (PTMISEA) Access control system/Computer Tablets for buses - \$6,273- funds received
  - ❖ **(PTMISEA) Total \$1,340,838**

# California Governor's Office of Emergency Services (Cal OES)

- (CalOES) Corporation Yard Security Alarm & Lighting System - \$21,565- funds received  
Quotes are being solicited through IT Department at this time.
- (CalOES) Corporation Yard Security Camera System - \$23,193- funds received
- Equipment purchased and awaiting installation when Maintenance Facility is completed
- (CalOES) Transfer Station Security Camera System - \$21,565- funds received  
Quotes are being solicited through IT Dept. at this time
- (CalOES) Corporation Yard Security Gate - \$21,565- funds received  
Project to replace east main gate. - Contract awarded and project in progress
- (CalOES) City Hall Security Fencing - \$21,565- application submitted waiting approval
- Project to provide match to Police Dept. project for Security Fencing at City Hall
- **(CalOES) Grants Total \$109,453**

# Federal Transit Administration (FTA) Grants

- (FTA) FY14-15 - 5311 Operating Assistance Grant - \$93,577- Application submitted/contract received Reimbursement being processed for submittal.
- (FTA) FY15-16 - 5311 Operating Assistance Grant - \$87,869- Application process in progress
- **(FTA) Grant Total \$181,446**
- ***Combined Grant Totals \$1,631,737***

# Thank You!

