

**MAINTENANCE DEPARTMENT  
ACTIVITIES REPORT  
JULY 11, 2020 – SEPTEMBER 4, 2020**

---

**Emergency**

On August 2, 2020, a Maintenance crew responded to an emergency callout to repair a main line on Lakeshore North in Lake of the Pines. On August 6, a Maintenance crew responded to an emergency service line repair on Brock Road. On August 17-18, a Maintenance crew worked through the night in response to an emergency callout to repair a service line on Lawrence Way in Alta Sierra.

**General**

On July 21, Nevada County crews (Grass Valley yard) completed “make up” forklift training. Make up training for Placer County crews (Gold Hill yard) was completed on July 30.

**Canal**

The Canal Maintenance Crew prepared and painted the Alta Sierra Siphon located at Round Valley Road in Alta Sierra, which serves the Rattlesnake Canal system. The crew also repaired the main line exiting the storage tank at Wood Camp at Jackson Meadows Reservoir, as well as repaired the undershot at Wood Creek. The crew also performed repairs to a 4” raw water line in Smartsville. For the Operations Department (Electricians), the crew delivered to and later retrieved from the Magnolia III pump station a generator for use during a 5 hour power outage in the Combie area. The crew also continued rehabilitation efforts along sections of the Maben Canal system to prepare for a flow test for future water sales. The crew also assisted the treated water Construction Crew with service line repairs. The crew is also continuing with routine canal maintenance efforts, including brushing, leak repair, vegetation removal (hand and mechanical), raw water deliver box maintenance, berm repair and armoring.

**Construction**

The Construction Crew has completed work on Phase 1 of the Lidster Avenue and Cypress Hill Drive Unit 1 Waterline Replacement Project. The crew has installed and tied over (operational) 2,000 ft of main line (8” C-900 PVC pipe), plus service lines and fire hydrants. The crew has also begun Phase 2 of the project and has installed 700 ft of main line with 1,200 ft remaining. The District is also under contract with JB Bostick Company to perform the final asphalt paving for Phase 1, which will be completed by October 15. The crew also completed cleaning the #1 Sedimentation Pond at the Lake Wildwood Treatment Plant.

**Facilities**

The Facilities Maintenance Crew continues general maintenance (brushing, weed eating, blowing of grounds, clean up, etc.) at District sites. The crew is continuing work on the pressure tank site at the Lake Tender House at Scotts Flat. The crew repaired steps and wheelchair access at Gate 2 at Scotts Flat Reservoir. The crew also assisted the Construction Crew in forming and pouring sidewalks and gutters on the Lidster/Cypress Hill project.

## **Fleet**

Mechanic Shop personnel performed 47 truck/vehicle services, 6 vehicle/equipment retrofits, 12 equipment services and 27 regulatory required inspections. In addition, the Mechanic Shop continues to play a key role in District efforts to ensure reliable water service in the event of PG&E PSPS events. Shop staff continue to perform field visits to maintain and prepare backup generators that power the District's water systems.

## **Placer**

The Placer Crew assisted the Service Crew with several treated water repairs in Lake Wildwood (Penn Valley), as well as in the Whispering Pines area (Grass Valley). The crew continues to perform treated water repairs on meters, main lines, service lines, double check valves (DCVs), other valves, etc., throughout the Lake of the Pines and North Auburn systems. The crew continues to perform brushing, berm repair and armoring, leak repair, vegetation removal (hand/mechanical), raw water delivery box maintenance and asphalt repair.

## **Service**

The Service Crew began and completed the Apple Avenue and Annex Avenue Waterline Replacement Project in the Glenbrook basin area of Grass Valley. This included replacement of 1,155 ft of main line (8" C-900 pipe), plus service lines and fire hydrants. The crew continues to repair and replace main lines, service lines, fire hydrants, valves and other treated water infrastructure. The Crew also completed numerous USA locating requests.

## **South Yuba**

The South Yuba Canal Crew worked with District land surveyor Mike Caston to solidified the Bear Valley site property corners. The crew assessed trees to be removed to open up the site and eliminate potential future issues. An outside contractor fell and bucked selected trees, chipped limbs and tree tops. The crew then removed the tree stumps. The District contracted with Foster & Son Trucking, LLC to deliver 1,860 cubic yards of dirt and off haul tree stumps (in empty trucks) to the District's Alta Hill Reservoir site. The crew then filled/set grade for yard development and subgrade was roughed out for the future building foundation. The crew cleared the perimeter fence line and the District is under contract with Benton Fence & Drilling, Inc. to install 1,125 lf of chain link fence by November 13. The new septic system permit has been issued, and the On-Site Soils Evaluation (OSSE) and gravity system design has been completed with Nevada County.

## **Vegetation**

The Vegetation Control Crew continued with its Aquatic Weed Control Schedule. The crew performed aquatic weed control to 1,042 miles of canal and terrestrial applications along 143.66 miles of canal. The crew also treated the Loma Rica Treatment Plant, Rex Reservoir, Union Reservoir, E. George Treatment Plant and Banner Tank Site with terrestrial spraying. The crew also performed visual assessments for future vegetation management needs at sites and along canals.

A detailed update to NID's Glyphosate Cost Study is included in this report in the following pages.

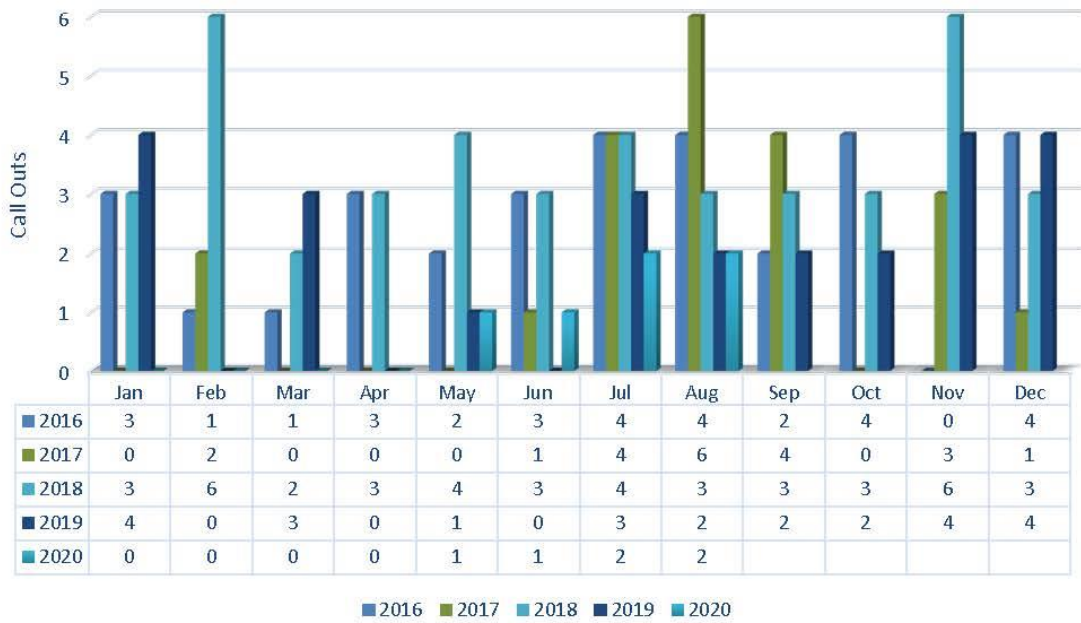
## **Welders**

The Welders performed many fabrications on existing and new equipment and vehicles. They also fabricated raw water delivery boxes, orifice plates and other items for the District, including “spools” for the Hayt #1 Siphon Replacement Project, a 6” Parshall Flume along the Weeks Canal and a gear box for the Lake Wildwood #1 Clarifier Tank.

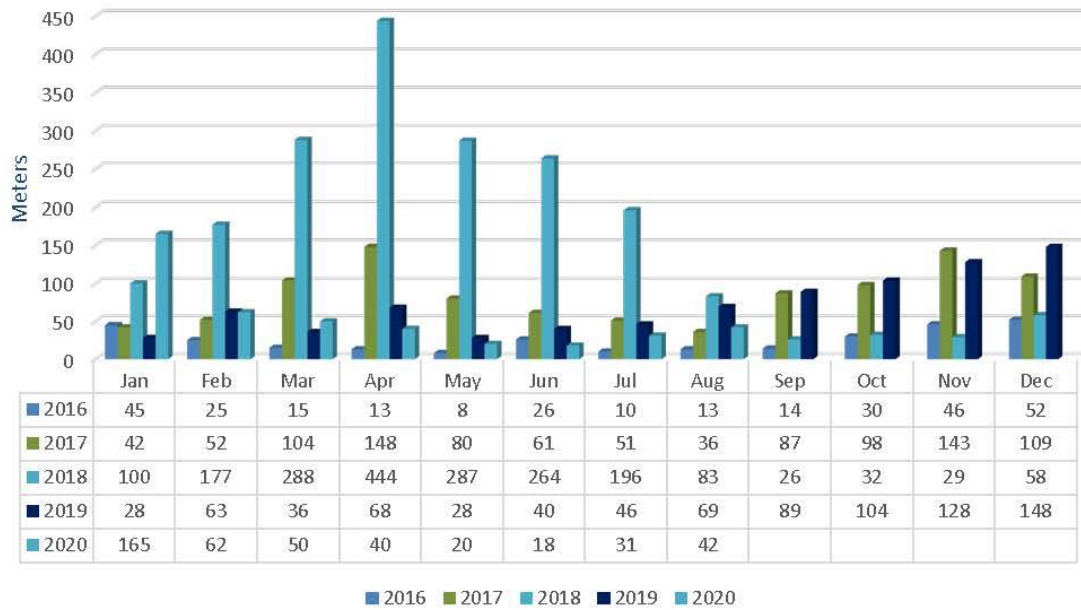
**MAINTENANCE DEPARTMENT  
ACTIVITIES SUMMARY OF SELECT "ROUTINE" WORK  
07/11/20 – 08/07/20**

CATEGORY / TASK DESCRIPTION	TOTAL #
<b>TREATED WATER</b>	
"EMERGENCY" CALL OUTS – SERVICE LINES / WATER MAINS / HYDRANTS	2
HYDRANTS – NEW / REPLACED / REPAIRED	0
METERS – NEW / REPLACED / REMOVED	42
METERS – REPAIRED / GATE VALVES	7
SERVICE LINES – NEW / REPLACED	12
VALVES – ARV, BLOWOFF, INLINE, DCVA, ETC.	6
WATER MAINS – REPAIRED / REPLACED	4
<b>RAW WATER</b>	
CANALS / BERMS – LEAKS AND REPAIRS	17
CANALS – CLEANED	1
CULVERTS – NEW / REPLACED / REMOVED	0
RAW WATER BOXES – NEW / REPLACED / MOVED / REMOVED	6
TREES – REMOVED	5
ACCESS ROADS – MAINTAINED	0
<b>FLEET</b>	
TRUCKS/VEHICLES – SERVICE / PREVENTATIVE MAINTENANCE	26
TRUCKS/VEHICLES – DAMAGE REPAIRS	0
TRUCKS/VEHICLES – RETROFITS	2
EQUIPMENT – SERVICE / PREVENTATIVE MAINTENANCE	6
EQUIPMENT – DAMAGE REPAIRS	0
EQUIPMENT – RETROFITS	0

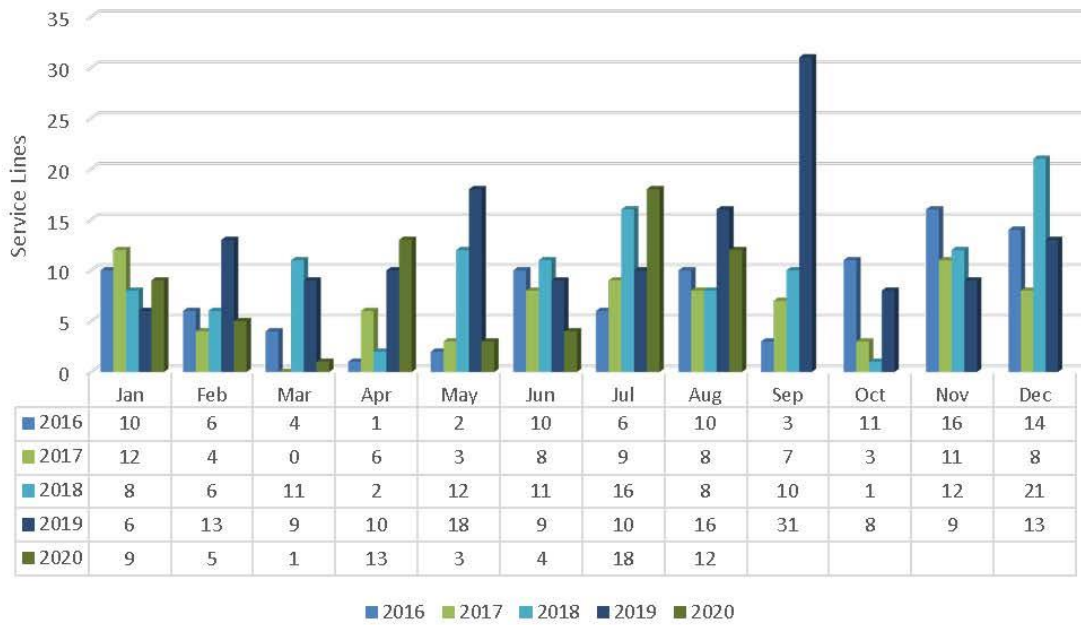
### Emergency Call Outs



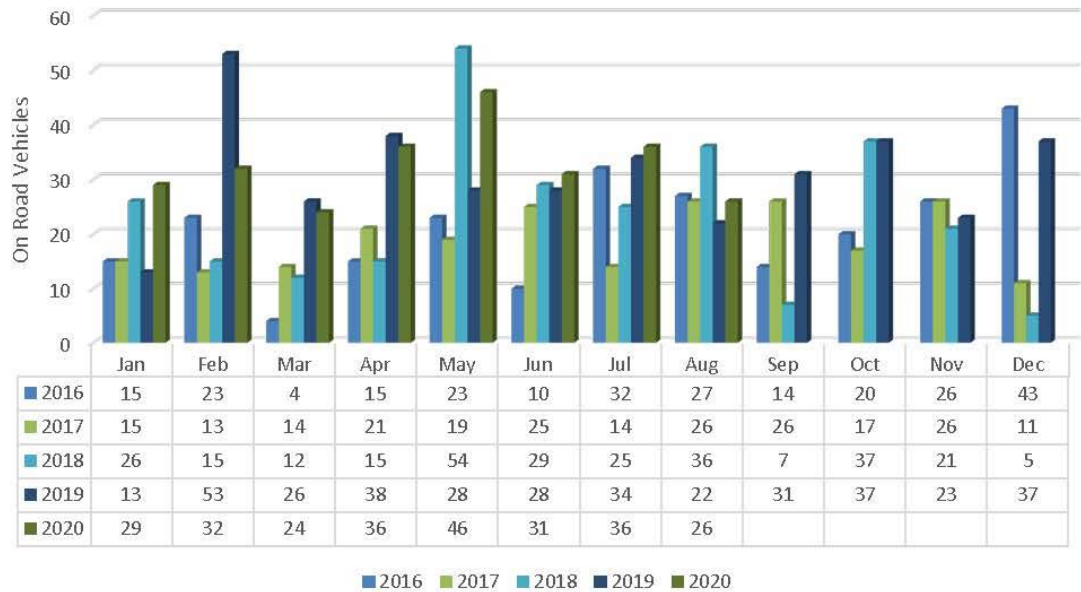
### Meter Replacements



### Service Line Replacements

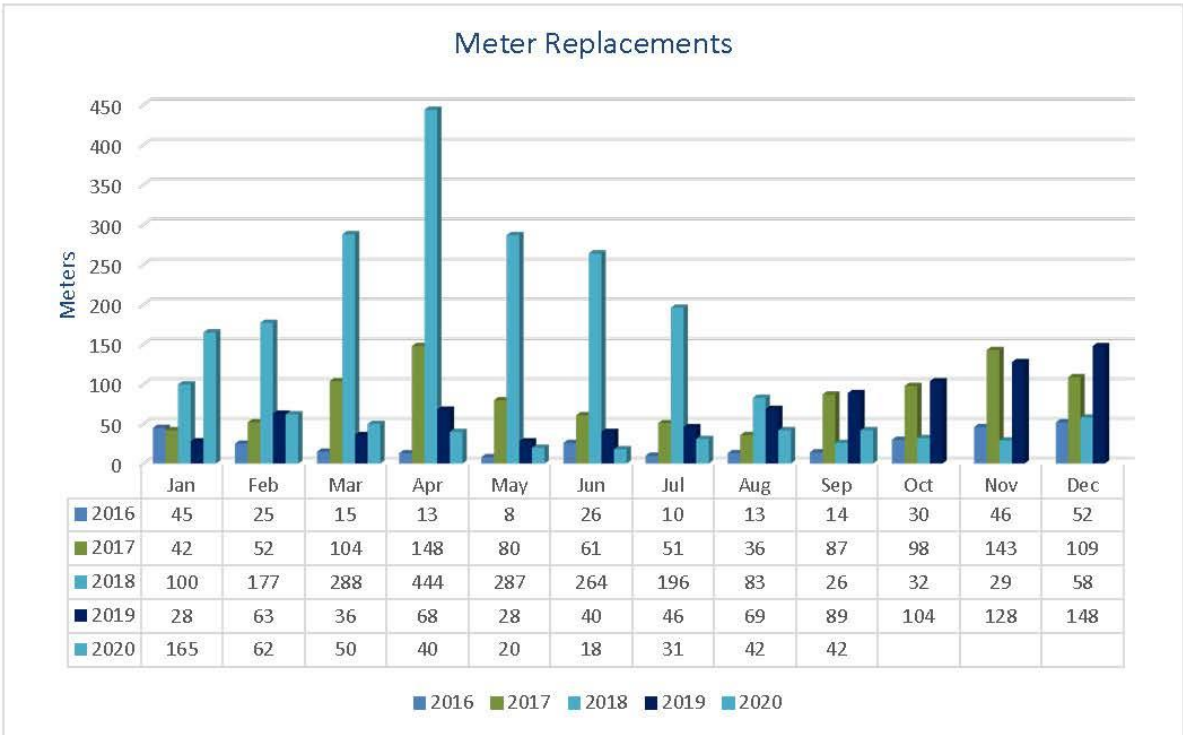
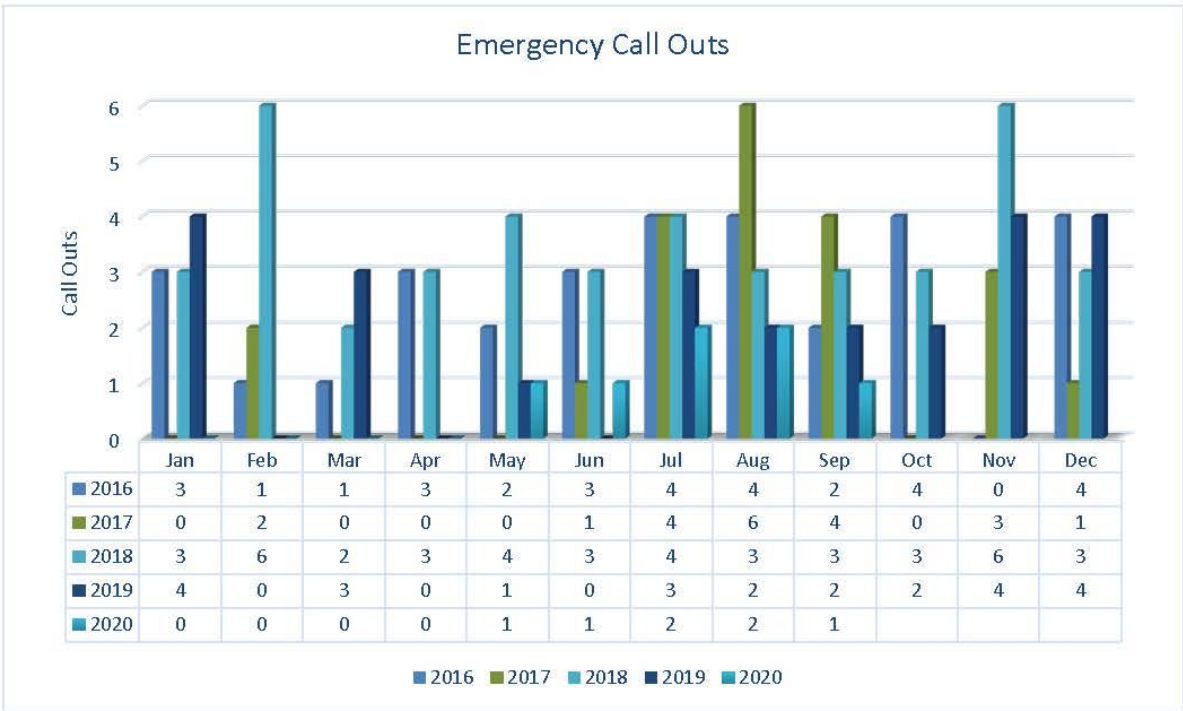


### On-Road Vehicle Service/Repairs



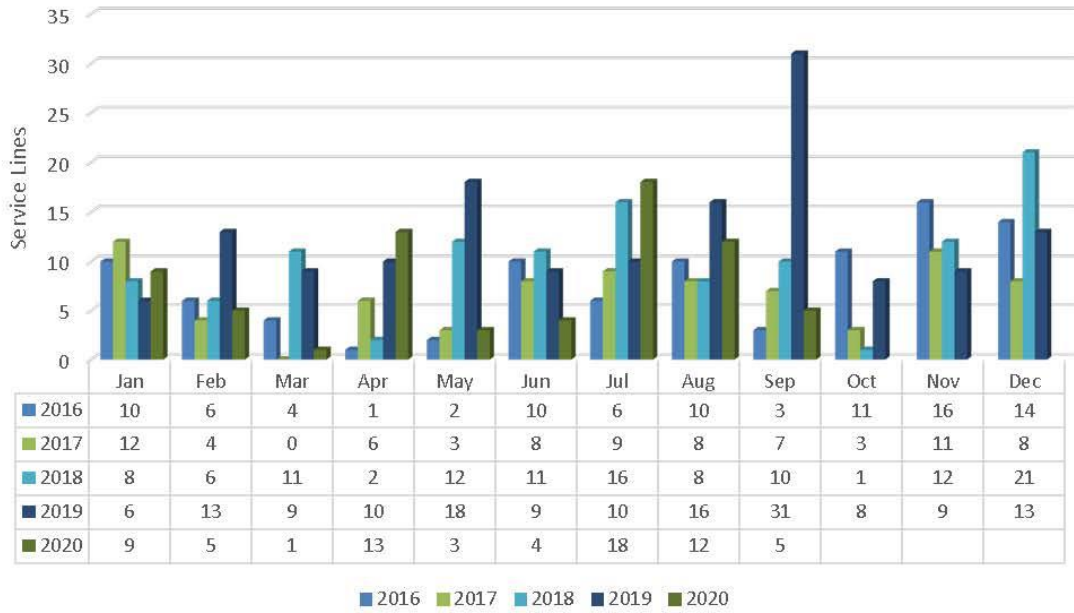
**MAINTENANCE DEPARTMENT  
ACTIVITIES SUMMARY OF SELECT "ROUTINE" WORK  
08/08/20 – 09/04/20**

CATEGORY / TASK DESCRIPTION	TOTAL #
<b>TREATED WATER</b>	
"EMERGENCY" CALL OUTS – SERVICE LINES / WATER MAINS / HYDRANTS	1
HYDRANTS – NEW / REPLACED / REPAIRED	0
METERS – NEW / REPLACED / REMOVED	42
METERS – REPAIRED / GATE VALVES	4
SERVICE LINES – NEW / REPLACED	5
VALVES – ARV, BLOWOFF, INLINE, DCVA, ETC.	11
WATER MAINS – REPAIRED / REPLACED	0
<b>RAW WATER</b>	
CANALS / BERMS – LEAKS AND REPAIRS	7
CANALS – CLEANED	0
CULVERTS – NEW / REPLACED / REMOVED	0
RAW WATER BOXES – NEW / REPLACED / MOVED / REMOVED	3
TREES – REMOVED	3
ACCESS ROADS – MAINTAINED	1
<b>FLEET</b>	
TRUCKS/VEHICLES – SERVICE / PREVENTATIVE MAINTENANCE	21
TRUCKS/VEHICLES – DAMAGE REPAIRS	0
TRUCKS/VEHICLES – RETROFITS	2
EQUIPMENT – SERVICE / PREVENTATIVE MAINTENANCE	6
EQUIPMENT – DAMAGE REPAIRS	0
EQUIPMENT – RETROFITS	2

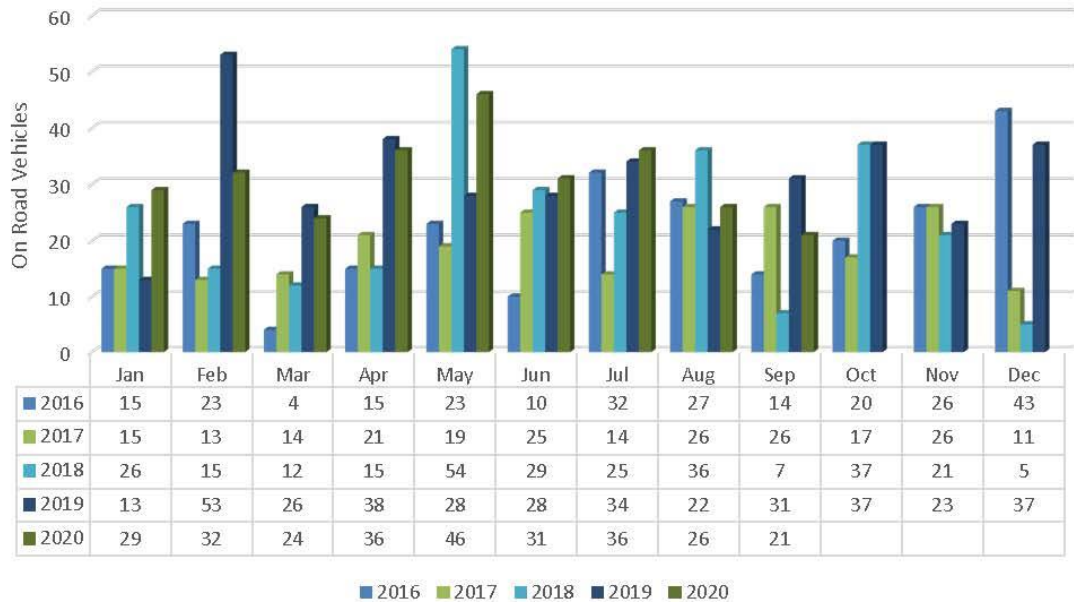




### Service Line Replacements



### On-Road Vehicle Service/Repairs





NEVADA IRRIGATION DISTRICT  
(Est. 1921)

MRM COMMITTEE PROJECT UPDATE

Bear Valley Property Development Project  
NID Project No. 2205

September 22, 2020

• **Project Description**

Develop the District’s Bear Valley property located at 11120 Bowman Lake Road in Nevada City, Nevada County, California, to include materials storage, an office and equipment building, a helicopter landing pad, etc.

• **Work Completed To-Date or Ongoing**

- Building Demolition
- Clear and Grub Site
- Septic Tank Abandonment
- Tree Removal
- Dirt and Tree Stump Hauling
- Fence Installation
- Electrical Meter / Circuit Breaker Board

**External costs associated with the above-work follow:**

- Building Demolition
  - Asbestos/Lead Inspections and Reports
 

Regas Group Environmental Consultants	\$	650.00
04/27/18		
  - Remove/Dispose of Hazardous Building
 

JM Environmental, Inc.	\$	49,000.00
06/18/18 - 08/15/18		
  
- Clear and Grub Site
 

Misita Tree & Land, Inc.	\$	38,270.00
11/30/18 - 12/21/18		
  
- Septic Tank Abandonment
 

Nevada County Environmental Health		
On-Site Soil Evaluation (OSSE) Fee	\$	674.62
Tank Abandonment Permit	\$	197.28
Pump and Backfill Tank		
Navo & Sons, Inc.	\$	595.00
07/15/20		

○ Tree Removal			
Misita Tree & Land, Inc.		\$ 16,700.00	
08/04/20 - 08/18/20			
○ Dirt and Tree Stump Hauling			
Foster & Son Trucking, LLC		\$ 26,400.00	Estimate
08/26/20 - 09/25/20			
○ Fence Installation			
Benton Fence & Drilling, Inc.		\$ 82,800.00	
09/___/2020 - 11/13/20			
Awaiting Bonds			
○ Equipment Rental			
HBE			
08/31/20-09/11/20 Rolling Compactor		\$ 3,295.00	Estimate
Herc			
06/26/20-07/26/20 Water Truck		\$ 2,842.16	
07/26/20-08/25/20 Water Truck		\$ 2,842.16	
Holt			
06/29/20-07/27/20 Excavator		\$ 9,623.84	
07/27/20-08/24/20 Excavator		\$ 8,931.32	
Pick Up Excavator		\$ 692.52	
○ Other / Miscellaneous			
Tesco Controls, Inc.		\$ 25,497.50	
09/03/20 Electrical Meter / Service Box			
		\$ 269,011.40	

- **Future Construction/Work**

- Concrete Building Foundation (120' x 150')
- Power Transformer (PG&E to set)
- Electrical Conduit (trenching and installation)
- Concrete Pad for Electrical Meter and Service Box Enclosure
- Concrete Material Storage Bins
- Helicopter Landing Pad



MRM COMMITTEE PROJECT UPDATE

Glyphosate Cost Study  
NID Project No. 2466

September 22, 2020

• **Project Description**

The District’s Integrated Vegetation Management (IVM) Program relies on a variety of tools, including herbicides, to control vegetation in and around its infrastructure. Among the herbicides used by the District is glyphosate. Public perception and development of plant resistance to glyphosate are among the reasons to evaluate alternatives and associated costs. Accordingly, the District has entered into a Consulting Services Agreement with Blankinship & Associates, Inc., from Davis, California, to evaluate these alternatives and costs.

• **Summary – Task / Timeline / Percentage Complete**

Task	Start	End	Complete*
1. Management and Meetings	08/26/20	01/10/21	27%
2. Evaluate Alternatives and Costs	09/02/20	09/30/20	26%
3. Survey Entities	09/12/20	10/10/20	1%
4a. Draft Report	09/20/20	10/18/20	0%
4b. NID Review	10/18/20	11/01/20	0%
4c. Final Report	11/01/20	11/15/20	0%
5a. Draft Presentation	11/15/20	11/29/20	0%
5b. NID Review	11/29/20	12/13/20	0%
5c. Final Presentations	12/20/20	01/10/21	0%

\* For services rendered through 08/29/2020; 9% complete overall.

• **Detailed Scope of Work**

○ **Task 1 – Study management and meetings.**

CONSULTANT will attend a kick-off meeting via Zoom or similar online format. During this meeting, CONSULTANT will review the scope and schedule, project objectives, introduce key members of the study team and collect available DISTRICT data.

CONSULTANT will set up a schedule for future project calls or virtual meetings to apprise DISTRICT of project status. As part of CONSULTANT’s monthly time and materials invoicing, CONSULTANT will provide a description of services provided, percentage complete and percentage of task budget remaining.

- **Task 2 – Identify and evaluate available glyphosate alternatives and their costs.**

CONSULTANT will identify and evaluate chemical, mechanical, physical and biological alternatives to glyphosate that are currently available in California. The advantages and disadvantages of each alternative will be presented, in addition to the estimated cost per acre of each alternative. Costs will include, but may not be limited to, materials, equipment and labor. DISTRICK will be included in the study and DISTRICK staff will be asked to provide data not readily accessible on DISTRICK's website.

- **Task 3 – Survey entities that have discontinued the use of glyphosate.**

Up to fifteen (15) California public entities that practice IVM will be surveyed to gather information on the results, impacts and overall experience of discontinuing glyphosate use. Results from the survey will include both quantitative and qualitative data and the name of the responding entity.

- **Task 4 – Data synthesis and final report.**

CONSULTANT will prepare a report with text and graphical representation of the findings of Tasks 2 and 3 suitable to the layperson. The final report will include, but is not limited to, the following sections: Executive Summary, Background, Introduction, Materials and Methods, Results and Discussion, Recommendations, and Literature cited. The report will be provided in draft to DISTRICK staff, who will have a minimum of two (2) opportunities for review, prior to issuance of the final report.

- **Task 5 – Presentations.**

CONSULTANT will give two (2) PowerPoint presentations using a Zoom or similar online format at a DISTRICK committee meeting and Board of Directors meeting. CONSULTANT will provide a draft of the presentation to DISTRICK staff with two (2) opportunities to review, prior to the final presentations.