

2008 State Damage Prevention Program Grants Final Progress Report
Funding Opportunity Number: DTPH56-08-SN-0001
CFDA Number: 20.720

Award Number: DTPH56-08-G-PHPS03
Project Title: Nevada's One-Call Project
Date Submitted: February 27, 2009
Submitted by: Clark Stoner and Ken Jones

I. Specific Objective(s) of the Agreement

Under the State Damage Prevention Grant, the PUCN will:

- Continue its implementation of the 9 elements as set forth in the PIPES Act.
- Start new initiatives to implement the 9 elements as set forth in the PIPES Act.
- Continue its enforcement of State damage prevention laws and regulations for all aspects of the damage prevention process

II. Work Scope

Under the terms of this agreement, the Grantee will address, the following elements listed in 49 USC §60134 through the actions it has specified in its Application.

Element (1): Participation by operators, excavators, and other stakeholders in the development and implementation of methods for establishing and maintaining effective communications between stakeholders from receipt of an excavation notification until successful completion of the excavation, as appropriate.

Element (2): A process for fostering and ensuring the support and partnership of stakeholders, including excavators, operators, locators, designers, and local government in all phases of the program.

Element (3): A process for reviewing the adequacy of a pipeline operator's internal performance measures regarding persons performing locating services and quality assurance programs.

Element (4): Participation by operators, excavators, and other stakeholders in the development and implementation of effective employee training programs to ensure that operators, the one-call center, the enforcing agency, and the excavators have partnered to design and implement training for the employees of operators, excavators, and locators.

Element (5): A process for fostering and ensuring active participation by all stakeholders in public education for damage prevention activities.

Element (6): A process for resolving disputes that defines the State authority's role as a partner and facilitator to resolve issues.

Element (7): Enforcement of State damage prevention laws and regulations for all aspects of the damage prevention process, including public education and the use of civil penalties for violations assessable by the appropriate State authority.

Element (8): A process for fostering and promoting the use, by all appropriate stakeholders, of improving technologies that may enhance communications, underground pipeline locating capability, and gathering and analyzing information about the accuracy and effectiveness of locating programs.

Element (9): A process for review and analysis of the effectiveness of each program element, including a means for implementing improvements identified by such program reviews.

III. Accomplishments for this period (Item 1 under Agreement Section 9.01 Progress Report: "A comparison of actual accomplishments to the objectives established for the period.")

Nevada's Damage Prevention Program is moving forward rapidly. Several Nevada Regional Common Ground Alliance (NRCGA) subcommittees were formed during 2008. Some have completed their work, some continue their work, and some are on hold awaiting preliminary actions, including the incorporation of the NRCGA as a non-profit organization.

The following is a quick review of the progress and the current status of the various NRCGA subcommittees formed and active in 2008:

NRCGA Bylaws - A temporary subcommittee formed to incorporate the NRCGA as a non-profit organization. Darryl McDuel of the PUCN is involved.

Education & Training - A permanent subcommittee formed to develop education and training materials for excavators, operators, locators and other defined stakeholders and implementing training programs. Craig Rogers and Wayne Whitaker of the PUCN are involved.

Scope of Work/Misc – A temporary subcommittee formed to address various technical issues related to one-call system effectiveness. It is currently focused on dealing with issues relating to night work. Craig Rogers of the PUCN is the Chair, and Ken Jones of the PUCN usually participates.

Marketing/Outreach - A permanent subcommittee formed to combine the financial marketing efforts of the major stakeholders. After incorporation later this year, the subcommittee will have over a \$100,000 budget. PUCN Staff has never been involved in this subcommittee.

NV DIRT - A permanent subcommittee formed to develop and implement a comprehensive adverse impact reporting system for NV that will supply data for the national CGA DIRT database. Criteria were developed long ago, but the subcommittee is idle waiting on incorporation of the NRCGA and development of the NRCGA website. Dana Wilson of SWG and Ken Jones of the PUCN are Co-Chairs of this subcommittee.

Website Development - A temporary subcommittee formed to develop and implement the NRCGA's "Nevada811" website. Dana Wilson of SWG is the Chair and the subcommittee is posed to finalize the development process as soon as the NVRCGA is incorporated. The adverse impact reporting system will also be run through the website. Ken Jones of the PUCN will be on this subcommittee.

Subsurface Utility Engineering (SUE) - A permanent subcommittee formed in January to perform outreach to better involve engineering/design consultants. The focus is on improving the engineering/design stage and coordination throughout the process through to construction to reduce the number of conflicts that must be dealt with during excavation. A Best Practice should result. Ken Jones of the PUCN and Christine Dudas of the Clark County Water Reclamation District are the Co-Chairs.

High Priority Stand-by - A temporary subcommittee formed to develop an NRCGA Best Practice for improving notice to excavators and having operators take additional steps when excavation work is to be conducted in close proximity to high pressure/capacity/consequence facilities. They may also get into additional precautions for trench less excavation work (boring/drilling). Wayne Whitaker of the PUCN is Chairing this subcommittee.

Enforcement - A temporary subcommittee formed to develop stakeholder consensus guidance for PUCN inspectors to follow for effectively enforcing the requirements of NRS 455. This guidance could form the basis for eventual modification of NRS and/or NAC 455. The subcommittee wrapped up this effort in the 3rd quarter of 2008 after 11 meetings. Ken Jones of the PUCN was the Chair.

(Legislation/Regulation) - A permanent subcommittee to be formed to review proposals to issue NRCGA Best Practices, converts Best Practices into requirements under NAC or NRS 455, or otherwise proposes modifications to NAC or NRS 455. The concept is for specific topics to be handled by this subcommittee.

IV. Nevada's Progress on the 9 Elements

ELEMENT 1

Has your organization established a plan and implemented a strategy for participation by operators, excavators and other stakeholders in the development and implementation of methods for establishing and maintaining effective communications between stakeholders from receipt of an excavation notification until successful completion of the excavation, as appropriate?

Adoption Status: Taking steps to adopt

Element 1 – Enhanced communications between operators and excavators.

Nevada plans to upgrade the current one-call center, to better meet the needs of operators and excavators. The current provider, USAN, has made a few minor improvements. By 2011, a fully effective and responsive one-call center with enhanced on-line capability and functional reporting from a one-call data base should be implemented.

ELEMENT 2

Has your organization established a plan and implemented a strategy for a process for fostering and ensuring the support and partnership of stakeholders, including excavators, operators, locators, designers, and local government in all phases of the program?

Adoption Status: Taking steps to adopt

Element 2 – Fostering support and partnership of all stakeholders.

The PUC is galvanizing the loose-knit Nevada Regional Common Ground Alliance (NRCGA) partnership into a formal, highly structured stakeholder advisory group with functions defined in statute and regulation.

NRCGA is incorporating as a non-profit organization. This should be completed by the 1Q-09. A 13-member Governing Board structure has already been established, and many subcommittees have been formed.

A funding mechanism is in the planning stages. One proposal is assessing dues by the Governing Board members. The decision should be made by early 2009, with fees starting shortly thereafter. Several planned activities are on-hold pending funding. For example, references to the NRCGA role in the damage prevention process should be added to statute and regulation between 2009 & 2001.

ELEMENT 3

Has your organization established a plan and implemented a strategy for a process for reviewing the adequacy of a pipeline operator's internal performance measures regarding persons performing locating services and quality assurance programs?

Adoption Status: Taking steps to adopt

Element 3 – Operators use of performance measures for locators

Each operator that has locating personnel and/or uses contract locating technicians needs to have a QA/QC process in place to ensure that timely and accurate marking is being performed.

The gas and pipeline companies have effective locator QA/QC programs based on 49 CFR Part 192; however, 15-20 large operators need to implement such programs. This effort needs to be coordinated with development of the NRCGA locator training and certification program.

All the major investor-owned utilities should have locating QA/QC programs in place by the end of 2009. It may take a while longer to get the larger mini utilities up to speed, although the largest, Las Vegas Valley Water District (LVVWD), already has a comprehensive program in place. The smallest 150 operators, mostly water and sewer, only need to get their personnel certified through the NRCGA training once that program is initiated. All operators should have adequate QA/QC programs in place by the end of 2010.

ELEMENT 4

Has your organization established a plan and implemented a strategy for participation by operators, excavators, and other stakeholders in the development and implementation of effective employee training programs to ensure that operators, the one-call center, the enforcing agency, and the excavators have partnered to design and implement training for the employees of operators excavators and locators?

Adoption Status: Taking steps to adopt

Element – 4 Partnership in employee training

The NRCGA will have a permanent Education & Training Subcommittee, which will develop and implement training programs for excavators, operators, locators, and other stakeholders.

The Education & Training Subcommittee was formed 2Q-08 and has identified the need for training programs in over six areas, as well as how training sessions will actually be conducted and by whom. Most training materials will be provided in both English and Spanish. The subcommittee is currently working on training for excavator field personnel and a guide for excavator office personnel on how to manage the ticket process. A first draft was completed in 2008.

The excavator office guide should be finished by 1Q-09 and training will begin the following quarter. The excavator field personnel training guides should be finished by the middle of '09, and training will begin immediately. Southwest Gas Company and Sierra Pacific Power Company have been conducting excavator training classes for their contractors and are heavily involved in the NRCGA effort and will transition their efforts over to the NRCGA certified training when the modules are completed. At that time, the Association of General Contractors (AGC), National Utility Contractor Association (NUCA) and other excavator associations, as well as other large operators will start to offer training courses.

Once the excavator office guide is done, that group will start working on a developer/builder guide. Once the excavator field personnel training modules are done, that group will start working on locator training and certification modules.

ELEMENT 5

Has your organization established a plan and implemented a strategy for a process for fostering and ensuring active participation by all stakeholders in public education for damage prevention activities?

Adoption Status: Taking steps to adopt

Element – 5 Partnership in Public Education

The NRCGA is planning a permanent Public Outreach/Education Subcommittee, which will pool major stakeholders' efforts and resources in advertising, marketing and outreach under the NRCGA Public Outreach/Education Program.

This subcommittee will be formed after the NRCGA is incorporated. Preparatory meetings began in mid 2007, where the major gas, pipeline, electric and telecom utilities indicated that pooled funds could add up to \$100-\$250k.

The Public Outreach/Education Subcommittee will be formed in mid-2009, but the pooled funds will not be available until 2010.

ELEMENT 6

Has your organization established a plan and implemented a strategy for a process for resolving disputes that defines the state authority's role as a partner and facilitator to resolve issues?

Adoption Status: Taking steps to adopt

Element - 6 Enforcement agencies' role to help resolve issues

Our pipeline engineers are involved with the NRCGA. This involvement includes attending all meetings and forming subcommittees.

3-5 pipeline engineers have attended every monthly or bi-monthly NRCGA meeting since late 2005 and have been included on virtually every subcommittee.

Numerous subcommittees are working at any one time. Those working on changes to regulations are formed once or twice a year. One will be formed to review changes to the NRS statute in the 2011 legislative session. Another objective of this subcommittee is to memorialize the NRCGA's role in statute and regulation. Our pipeline engineers are also involved in the formation of the new NRCGA permanent subcommittees that will take on specific roles defined in statute or regulation. A new subcommittee is forming roughly every quarter and all should be in place by late

2009. One planned permanent subcommittee will perform enforcement oversight and dispute resolution roles. Formation of that subcommittee will depend on the next legislative session.

ELEMENT 7

Has your organization established a plan and implemented a strategy for enforcement of State damage prevention laws and regulation for all aspects of the damage prevention process, including public education, and the use of civil penalties for violations assessable by the appropriate State authority?

Adoption Status: Taking steps to adopt

Element – 7 Fair and consistent enforcement of the law

An enforcement system composed of numerous checks and balances is proposed. In the proposal, enforcement activities by our pipeline engineers could be appealed to a peer appeals panel, and decisions of that panel could be appealed to the Commission.

Our pipeline engineers have been working with stakeholders in the NRCGA Enforcement Subcommittee to develop criteria for assessing citations in the field. Every statutory and regulatory requirement has been reviewed and assigned a tier raking based on assessed damage. Three tiers have been defined: 1) verbal warning, 2) written warning, and 3) graduated fines. An outline has been developed of how to revise the statute to implement such a system.

The objective is to get the new enforcement plan before the 2011 legislative sessions. Our pipeline engineers are currently enforcing the one-call law. The stakeholders want lesser, immediate fines assessed, with possible review by a select group of stakeholders to ensure enforcement is being applied fairly and equitably. The PUC's current and future mandate covers ALL operators, excavators and contract locators, including municipal utilities.

ELEMENT 8

Has your organization established a plan and implemented a strategy for a process for fostering and promoting the use, by all appropriate stakeholders, of improving technologies that may enhance communications, underground pipeline locating capability, and gathering and analyzing information about the accuracy and effectiveness of locating programs?

Adoption Status: Taking steps to adopt

Element – 8 Use of technology to improve the locating process

Upgrade the one-call center capability to make better use of web applications, make better use of GPS capabilities and review other technologies for possible applications.

The one-call center software provider has made some enhancements to facilitate better use of GPS data by an excavator to delineate the area of excavation, and the one-call center is working toward making mapping upgrades to make use of this capability.

Full web access for making excavation notifications to the one-call center will come with the comprehensive upgrades. Use of TV cameras installed within sewer mains and laterals to facilitate locating laterals of unknown alignment is being proposed as part of a comprehensive agreement to address the locating of sewer laterals, which has not been done in the past in most areas. This should get resolved in statute and regulation between now and 2011.

ELEMENT 9

Has your organization established a plan and implemented a strategy for a process for review and analysis of the effectiveness of each program element, including a means for implementing improvements identified by such program review?

Adoption Status: Taking steps to adopt

Element – 9 Data analysis to continually improve program effectiveness

The NRCGA will operate an Adverse Impact reporting system, which will cover damage reports from ALL operators, and delays and/or cost impacts borne by excavators or locators. The operator data will dump into the CGA DIRT system. In addition, PUC Staff will compile similar data in an enforcement database. It will be possible to combine or align the data from both systems to perform detailed analysis.

The data fields for the Adverse Impact reporting system have been developed, but the software can't be developed and activated until after the NRCGA has been incorporated, funds allocated, and the website started up. What will be called "NV DIRT" will allow on-line data entry or periodic data dumps of common fields from sophisticated damage/claims databases that the major utilities use. PUC Staff developed and have been using On-Call Field Inspection Report forms since mid-2007. This form undergoes periodic revision to conform to the Adverse Impact form design with both formats using much the same data fields.

NV DIRT should be up and running by mid-2009. The PUC Staff is collecting simpler damage data from stakeholders in 2008. We also hope to build the back-end database for the PUCN One-Call Field Inspection Report forms in 2009 and hopefully upgrade our PCs to facilitate direct in-field data entry.

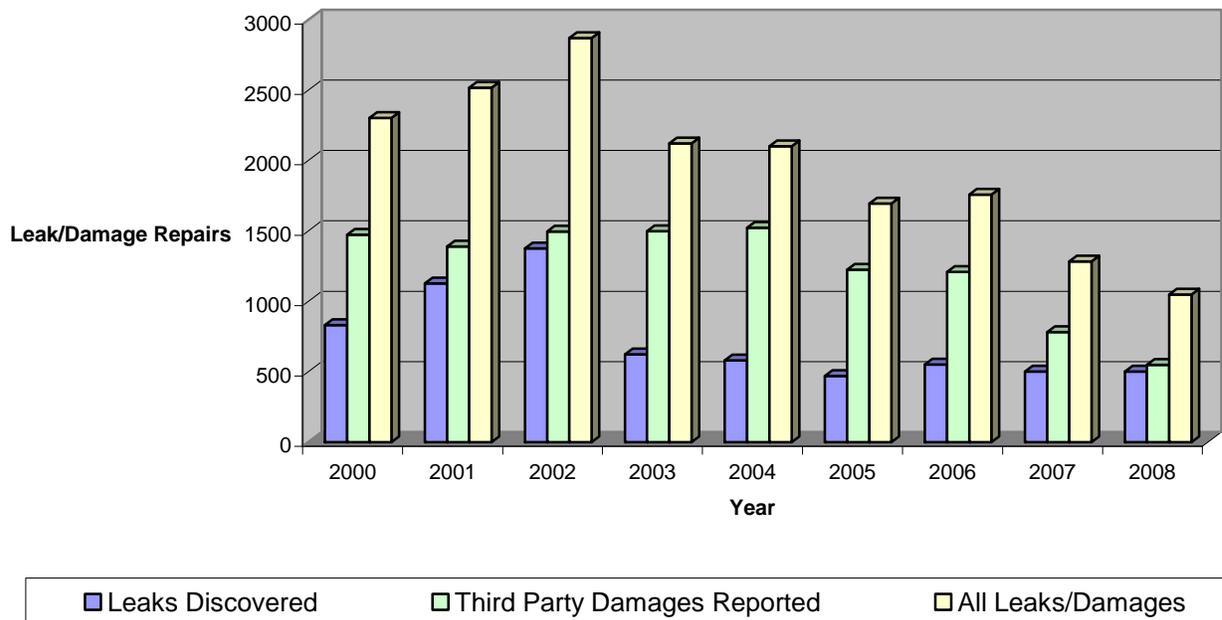
V. Quantifiable Metrics/Measures of Effectiveness (Item 2 under Agreement Section 9.01 Project Report: “Where the output of the project can be quantified, a computation of the cost per unit of output.”)

During the 2007 legislative session, Nevada’s One-Call Statute, NRS 455, was revised to reduce the marking location distance from 30 to 24 inches, extend the one-call ticket from 14 to 28 days and extend direct enforcement authority to the Public Utilities Commission of Nevada’s (PUCN) Regulatory Operations Staff. Nevada has developed and implemented enforcement procedures including issuing warning letters, show cause hearings and citations.

With the receipt of the SDP Grant, Nevada is increasing its focus on One-Call field inspections. During 2008, the inspectors have inspected over 450 job sites. There were 178 violations found and 58 jobs were shut down. Violations could be: no white paint, no ticket, no marks, etc. Subsequently there were 73 meetings or training sessions held with the excavators, explaining Nevada’s One-Call Law. Enforcement procedures were implemented in June of 2008, and subsequently four warning letters and two “show cause” citation notices were sent out, with the “show cause” hearings held in January 2009. (From January 1 through the end of February 2009, the PUCN has averaged one enforcement action per week.)

Since 2003, Nevada has focused on the Damage Prevention Process by enforcing 49 CFR 192 and the state one-call law (NRS 455) with the LDC’s. The results can be seen on the following graph showing a decline in third party damages beginning in 2004 through 2008.

2000-2008 Gas Leak/Damage Repair Trends



Beginning in 2008, Nevada has been receiving damage reports from all stake holders. The following explanation and pie charts show the results of this new data base.

Review of PUCN Damage Reports Submitted for 2008

For all of 2008, January 1 thru December 31, the PUCN received 983 damage reports, 496 were supplied by database spreadsheet and 487 were supplied on individual report form. Entities reporting as Operators submitted 904 of the reports, and entities reporting as Excavators reported 79, with 51 of the Excavator reports being for instances also reported by the Operator. The number of reports from contract Excavators was also 64, with the other 15 coming from utilities acting in the role of an Excavator. The resulting number of distinct damage events reported was 932.

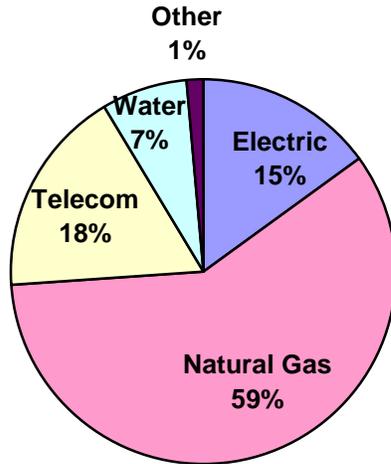
Not all Operators provided damage reports, but a majority of the larger ones did, which allows for projecting what the “real” number of damages might have been for the period. Dividing the number of reported damages for each Operator type (electric, water, etc.) by the percentage of all that type of customers served by the reporting entities allows for projecting what wasn’t reported. Doing so indicates that the total number of damages statewide was probably in the area of 1085 for the year (2008), or about 15% above what was reported. The biggest estimate comes with “Other”, which covers sewer and roadway facilities plus some other dogs and cats. Probably only a small fraction of such damages get reported, and in fact most of those that were reported to the PUCN for this period were reported by Excavators.

The following pie charts illustrate: the damage break-down by operator type (reported & projected), and the damage break-down by basic root causes for all operators combined, as well as for each major type. The basic root cause of “Not a Valid Ticket” covers: No Call, Early Start, Working Outside of the Designated Work Area, Working with an Expired Ticket, etc. The basic root cause of “Hit with Mechanical Equipment” covers the aspects relating to not confirming the location of a marked facility. “Misc. Damage” covers damage with hand tools, failure to support/protect an exposed facility, etc. “Miss-Mark” covers the aspect where the operator didn’t mark correctly, if at all.

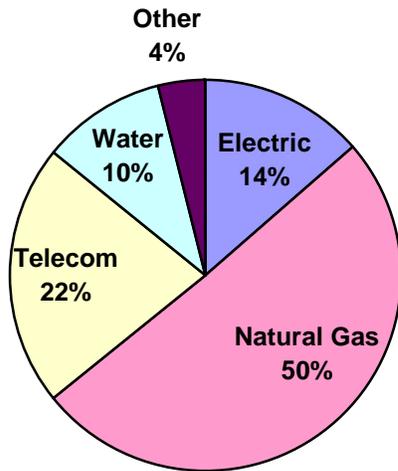
Tabulated Reporting Data

Operator Type	Not a Valid Ticket	Hit With Mechanical Equipment	Misc Damage	Miss-Mark	TOTAL Damages	% of All Reported Damages	Estimated % of All Accounts Reporting	Projected # of Actual Damages	Projected % of Actual Damages
Electric	50	38	25	27	140	15.0%	95%	147	13.6%
Natural Gas	200	120	127	101	548	58.8%	100%	548	50.5%
Telecom	55	59	19	32	165	17.7%	70%	236	21.7%
Water	9	25	12	20	66	7.1%	60%	110	10.1%
Other	2	2	3	6	13	1.4%	30%	43	4.0%
TOTAL:	316	244	186	186	932			1084	

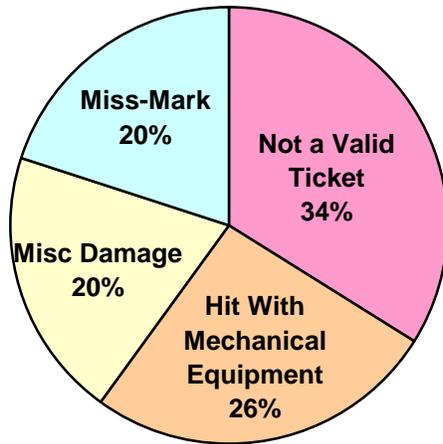
**Break-Down of Damages by Type of Operator
(932 Reported)**



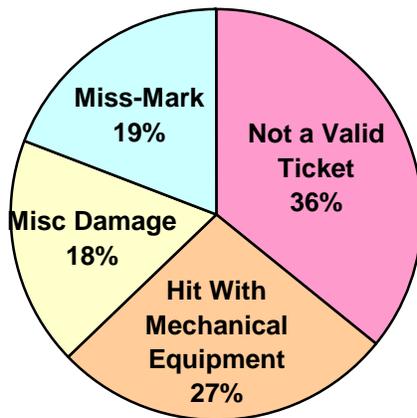
**Break-Down of Damages by Type of Operator
(1084 Projected)**



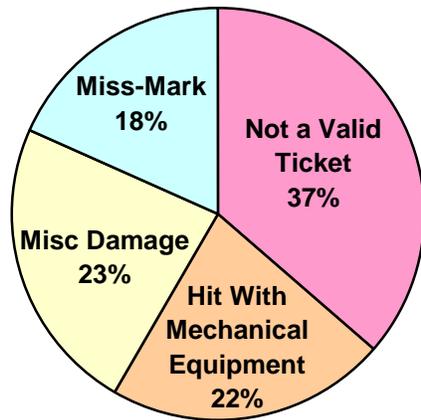
**YTD Break-Down of Damages by
Basic Root Causes - All Operators**



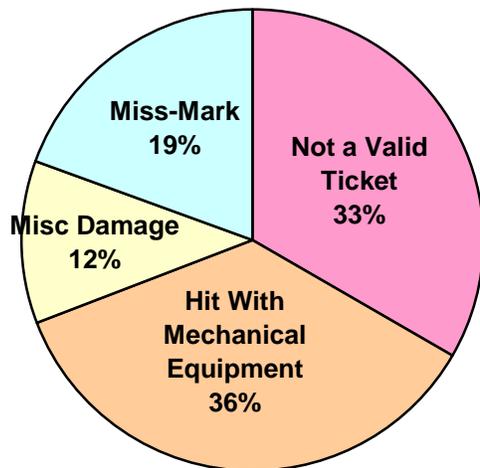
**YTD Break-Down of Damages by
Basic Root Cause - Electric**



**YTD Break-Down of Damages by
Basic Root Cause - Natural Gas**



**YTD Break-Down of Damages by
Basic Root Cause - Telecom**



VI. Issues, Problems or Challenges (Item 3 under Agreement Section 9.01 Project Report: “The reasons for slippage if established objectives were not met. “)

No issues.

VII. Other pertinent information including, when appropriate, actions taken to address the recommendations PHMSA provided in correspondence dated [Different for each] (Item 4 under Agreement Section 9.01).

3b. Recommendations:

1. Solicitation, Section 6.01, Criteria (6) states, “A commitment to quality controls in timing, personnel, and costs for deliverables offered in exchange for the grant.” We would like to see more detail on your commitment to this criterion.
2. It appears from the proposal that two individuals working on enforcement will be transitioned to field work. While we encourage experienced people going to these types of roles, we had some concern on how this move may negatively affect progress of the enforcement program. We would like to know if someone else will be taking these previous roles, and if not, will these individuals be spread too thin ?
3. While we acknowledge sub-committees are good, sometimes too many sub-committees are counter-productive. It appears to be a large amount of sub-committees being considered. We would like to see more detail clarifying how each will integrate with the other, and how they will be properly managed to ensure progress is made.
4. In some cases, it may be good to prioritize and focus on getting a smaller amount of sub-committees going first. We would like to see better definition of timelines and milestones.

The following is in response to PHMSA’s “Recommendations” under 3(b) of the Solicitation. Nevada enhanced its focus on the One-Call Program (OCP) in 2003. This was done by performing special audits on the Damage Prevention Programs and Line Locating Procedures of the LDC’s.

3b(1)(2) In 2005, one engineer was hired and assigned full time to the OCP. This was the beginning of Nevada’s increased focus on the Common Ground Alliance (CGA). This increased focus has resulted in the formation of the very viable Nevada Regional Common Ground Alliance (NRCGA). In 2007, two new inspectors were hired. One is focusing full time on One-Call field inspections. Currently, Nevada has 3 other inspectors performing full time field inspections some of which are One-Call related.

All inspector time for SDP inspections have been recorded. This provided the basis for tracking of the costs per month that are included on Form 269.

3b(3)(4) Again, this comment regarding sub committees is true. Nevada understands that too many committees might lead to the NRCGA just spinning its wheels and limiting their accomplishments. This is not what is going on in Nevada. Please refer above to the Progress on the subcommittees and the 9 Elements section of this report. Certain sub committees have been established based on their importance. As the objectives of the Committees are accomplished, additional sub committees will be developed as appropriate.

VIII. Final Financial Status Report

Currently there are no issues or delays. The SF-269 and the Final financial report will be sent as separate attachments to the AA and AOTR. This will be done prior to the March 31, 2009 due date.

IX. Plans for next period (remainder of grant)

This Final report summarizes the status of Nevada's 2008 SDP Grant.

X. Requests of the AOTR and/or PHMSA

None