

2017 State Damage Prevention Program Grant Final Progress Report
CFDA Number: 20.720

Award Number: 593JK31741003

Grant Title: *New Jersey Board of Public Utilities State Damage Prevention Grant*

Project Title: *Project 1: Web-Based Damage Prevention Training Course*

Project 2: Personnel Expenses to Enforce NJ Damage Prevention Laws and Regulations

Report Period: *September 25, 2017 – September 24, 2018*

Date Submitted: *February 6, 2019*

Submitted by: *Michael Stonack*

Specific Objective(s) of the Agreement

Under this grant agreement, the NJBPU will enforce:

- *Laws and regulations of the damage prevention process*

Workscope

Under the terms of this grant agreement, the NJBPU will address the following elements listed in the approved application as stated in 49 U.S.C. §60134 (b).

- ***Element 7 (Enforcement):*** *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.*

Accomplishments for this period (“A comparison of actual accomplishments to the objectives established.”)

Project 1

The proposed project was to develop an online damage prevention training course that will be assigned to non-compliant excavators. The web-based training course will be used for damage prevention education and as a remediation measure in lieu of or in conjunction with the use of civil penalties for violations of the New Jersey Underground Facility Protection Act. In conjunction with the NJBPU, the project was developed by Rutgers University Center for Advanced Infrastructure and Transportation (CAIT). A final report from Rutgers CAIT on Project 1 is included separately and labeled Attachment A - Project 1 Report with the submittals to the AA. This project directly affects Element 7 (Enforcement) of the NJBPU Damage Prevention Program.

Five major tasks were executed in this project and are detailed in the Rutgers CAIT final report:

Task 1. Review existing underground damage prevention courses and material

Task 2. Develop the outline and course content

- Task 3. Create scenario planning in 3D environment
- a. Scenario 1 – properly marked out excavation site
 - b. Scenario 2 – some improper utility markout incorporated into site
 - c. Scenario 3 – No markout situation if appropriate for instruction or exam questions
 - d. Up to three (3) other scenarios as deemed appropriate for instruction or exam questions
 - e. Create instruction activity and exam questions based on the above scenarios
- Task 4. Develop web-based application incorporating outline, course material and 3D scenarios.
- a. Establish same user field codes as used in one-call database for use as credentials for online course
 - b. Create pilot host site for web development
 - c. Once course is completed, transfer to New Jersey One Call site
 - d. Pilot the course and analyze user-interface and functionality
 - e. Create new user-response database
 - f. Establish certificate creation based on user credentials
- Task 5. Based on the new user-response database, establish baseline analytics for excavator decision-making and behavior.

Project 2

Project 2 SDP Grant funds were used to offset salary and fringe benefit expenses for a damage prevention staff member to perform damage prevention compliance enforcement and related program activities. The NJBPU uses a Damage Prevention / One Call database to track underground facility damages, damage and non-compliance investigations, enforcement actions, and settlements of the enforcement actions. This Grant project was concentrated on natural gas facility damages, although other utility damages are also being reviewed, investigated, and considered for enforcement. The damage prevention compliance enforcement and complaint investigator funded by this SDP Grant conducted investigations of probable non-compliance and complaints relative to the New Jersey Underground Facility Protection Act ("Act"), issued probable non-compliance enforcement actions, addressed responses to non-compliance enforcement actions, determined proposed enforcement penalties with other damage prevention staff for probable non-compliance with the Act, and tracked probable non-compliance and complaint investigations and enforcement actions through the NJBPU database. Utilizing the Grant funding, non-compliance investigations were increased, additional non-compliance enforcement actions were processed, and the NJBPU damage prevention program was strengthened. This project directly affects Element 7 (Enforcement) of the NJBPU Damage Prevention Program.

Table 1 provides a multi-year review of total gas facility damages from 2009 through 2018. In addition, Chart 1 shows a graphical representation of gas facility damages per 1,000 incoming ticket locate requests (Incoming Calls). This chart shows an overall declining trend over the years from 2009 through 2018, with 2.14 damages per 1,000 in calendar year 2018.

Table 1: Gas Facility Damages in New Jersey

Year	Incoming Calls	Total Gas Damages	Damages per 1,000
2009	533,318	1,656	3.11
2010	442,860	1,727	3.90
2011	490,462	1,604	3.27
2012	535,856	1,569	2.93
2013	574,721	1,770	3.08
2014	560,379	1,832	3.27
2015	609,825	1,899	3.11
2016	652,396	1,878	2.88
2017	725,756	1,808	2.49
2018	795,756	1,707	2.14

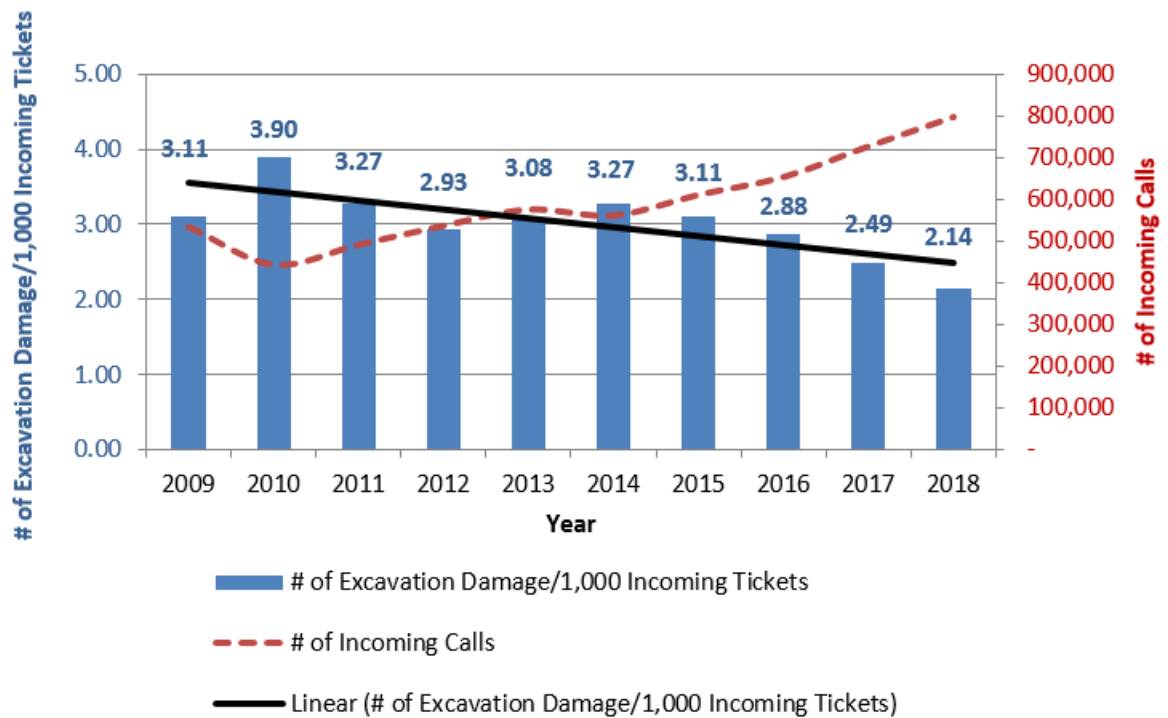
Overall**Chart 1: Gas Facility Damages and Damages/1000 Tickets in New Jersey (2009-2018)**

Table 2 illustrates total damage cases by month for all underground facilities entered into the NJBPU database for review and those cases that were opened for investigation during the Grant period. The total cases entered for review also include locate not requested cases (no calls) that did not result in damages. These cases are ones where staff investigation found excavators digging without calling NJ One Call for a locate request or where a complaint was

submitted against an excavator who was digging without underground facilities being marked. As indicated by the totals in Table 2, 96 percent (2,929 / 3,038) of all damage cases entered into the database were opened for investigation during the Grant period.

Table 2: Case Investigations (All Facilities) by Month

Year	Month	Entered for Review / Opened for Investigation
2017	October	302 / 415
2017	November	257 / 45
2017	December	157 / 64
2018	January	117 / 600
2018	February	126 / 8
2018	March	115 / 30
2018	April	214 / 4
2018	May	269 / 45
2018	June	311 / 732
2018	July	293 / 106
2018	August	326 / 748
2018	September	207 / 113
Total		3,038 / 2,929

Table 3 illustrates total gas facility damage cases entered into the database for review and those cases that have been opened for investigation from October 2017 through September 2018. The total cases entered for review also include locate not requested cases (no calls) that did not result in damages. The total cases opened for investigation during this Grant period exceeded the cases entered into the NJBPU database for review by 60 cases (2,002 – 1,942). This was a result of cases that were entered in the NJBPU database in the prior Grant period (2016 SDP Grant) being opened for investigation in the 2017 SDP Grant period.

Table 3 - Case Investigations (Gas Facilities) by Month

Year	Month	Entered for Review / Opened for Investigation
2017	October	196 / 357
2017	November	163 / 22
2017	December	86 / 64
2018	January	84 / 364
2018	February	87 / 1
2018	March	98 / 18
2018	April	125 / 1
2018	May	172 / 24
2018	June	183 / 501
2018	July	196 / 63
2018	August	197 / 495
2018	September	144 / 73
Total		1942 / 2002

The Non-Compliance Enforcement Status Report illustrated by Table 4 on page 5 shows an example page of a report from the NJBPU database showing the status and tracking of damaged gas facility cases being investigated for possible enforcement actions. The example page shows cases for damage dates of September 20, 2018 through September 24, 2018.

Table 4: Non-Compliance Enforcement Status Report

Damage Date	OC #	Industry	Location	Operator	Excavator	Posted Date
09/24/2018	GOC2018-1196	GAS	666 Denver Blvd, Edison, NJ 08820	ELIZABETHTOWN GAS	Royal Builder	10/02/2018
09/24/2018	GOC2018-1200	GAS	220 Wychwood Rd, Westfield, NJ 07090	ELIZABETHTOWN GAS	SKODA CONTRACTING	10/02/2018
09/24/2018	GOC2018-1213	GAS	10 River St, Red Bank, NJ 07701	NJ NATURAL GAS	Kudos Enterprises, Inc	10/02/2018
09/24/2018	GOC2018-1214	GAS	181 Euclid Ave, Aberdeen Township, NJ 07747	NJ NATURAL GAS	Lucas Construction	10/02/2018
09/24/2018	GOC2018-1234	GAS	211 E Newark Ave, Wildwood Crest, NJ 08260	SOUTH JERSEY GAS	PERNA FINNEGAN	10/03/2018
09/24/2018	GOC2018-1235	GAS	620 Haddonfield-Berlin Rd, Voorhees Township, NJ 08043	SOUTH JERSEY GAS	Mid Atlantic Construction	10/03/2018
09/24/2018	GOC2018-1236	GAS	210 56th St, Sea Isle City, NJ 08243	SOUTH JERSEY GAS	Utility Line Services	10/03/2018
09/24/2018	GOC2018-1265	GAS	10 Court St, Morristown, NJ 07960	PSE&G (G)	AJM Contractors inc.	10/09/2018
09/24/2018	GOC2018-1266	GAS	Dewey St & Broughton Ave, Bloomfield, NJ 07003	PSE&G (G)	Jimie Gavlic	10/09/2018
09/22/2018	GOC2018-1212	GAS	67 E Bergen Pl, Red Bank, NJ 07701	NJ NATURAL GAS	Lucas Brothers Inc	10/02/2018
09/22/2018	GOC2018-1233	GAS	1005 W Geneva St, Egg Harbor City, NJ 08215	SOUTH JERSEY GAS	Homeowner	10/03/2018
09/22/2018	GOC2018-1264	GAS	Route-70, Evesham Township, NJ 08053	PSE&G (G)	Dover Construction	10/09/2018
09/21/2018	GOC2018-1211	GAS	251 monmouth ave, Navesink, NJ 07752	NJ NATURAL GAS	Parkside Manor Inc	10/02/2018
09/21/2018	GOC2018-1263	GAS	305 RT-17 S, Paramus, NJ 07652	PSE&G (G)	D & S Land Development	10/09/2018
09/20/2018	GOC2018-1199	GAS	1945 Grenville Rd, Scotch Plains, NJ 07076	ELIZABETHTOWN GAS	Scotch plains DPW	10/02/2018
09/20/2018	GOC2018-1209	GAS	4043 RT-33, Neptune City, NJ 07753	NJ NATURAL GAS	Thomas Farrell Contracting	10/02/2018
09/20/2018	GOC2018-1210	GAS	1955 Ship Ct, Toms River Township, NJ 08753	NJ NATURAL GAS	Paul Vircik Construction	10/02/2018
09/20/2018	GOC2018-1215	GAS	530 Fischer Blvd, Toms River Township, NJ 08753	NJ NATURAL GAS	GMX Fencing	10/02/2018
09/20/2018	GOC2018-1229	GAS	791 W Walnut Rd, Vineland, NJ 08360	SOUTH JERSEY GAS	City of Vineland Water Dept.	10/03/2018
09/20/2018	GOC2018-1230	GAS	204 Firethorn Ct., Washington Township, NJ 08012	SOUTH JERSEY GAS	Perfect Touch Landscape	10/03/2018
09/20/2018	GOC2018-1231	GAS	2410 Central Ave, Wildwood, NJ 08260	SOUTH JERSEY GAS	North Wildwood Public Works	10/03/2018
09/20/2018	GOC2018-1232	GAS	100 Oxford Circle, Northfield, NJ 08225	SOUTH JERSEY GAS	NJ Home Sales	10/03/2018
09/20/2018	GOC2018-1242	GAS	102 Delancey St, Newark, NJ 07105	PSE&G (G)	Century Iron Work LLC	10/09/2018
09/20/2018	GOC2018-1243	GAS	67 Yellow Meeting House Rd, Cream Ridge, NJ 08514	PSE&G (G)	DIG IT EXCAVATION	10/09/2018
09/20/2018	GOC2018-1261	GAS	2083 Highway 206, Lawrence Township, NJ 08648	PSE&G (G)	McAllister Construction Company	10/09/2018
09/20/2018	GOC2018-1262	GAS	207 Piaget Ave, Clifton, NJ 07011	PSE&G (G)	J FLETCHER CREAMER	10/09/2018

Quantifiable Metrics/Measures of Effectiveness (“Where the output of the project can be quantified.”)

Project 1

All of the project tasks were completed during the project period of performance. The deliverables from this project are:

- (1) A web portal consisting of web-based training contents and assessments that can be deployed by the NJBPU on the New Jersey One Call Server or Amazon Web Service for training and assessing excavators.
- (2) A software program consisting of source code, designed database, and programmable modules which will allow the NJBPU, in conjunction with the New Jersey One Call Center, to add and enrich training courses and assessment questions.
- (3) A final report that contains the summary of this project and a manual on how to operate and maintain the web-based system.

Project 2

The work being performed by the staff member has been very effective in accomplishing the Grant objectives of enhancing compliance and complaint investigations, and enforcement actions. As indicated in the enforcement settlement report for all underground facility damages, Table 5 below, there were 617 enforcement settlements during the Grant period totaling \$1,830,000. Table 5 also shows the number of settlements by week and the settlement amounts received.

Table 5 - Enforcement Settlement Report

Week Ending	Settlements Received	Settlement Amounts	Week Ending	Settlements Received	Settlement Amounts
09/29/17	14	42,000	04/06/18	5	15,000
10/06/17	8	24,000	04/13/18	8	24,000
10/13/17	6	17,000	04/20/18	12	36,000
10/20/17	27	81,000	04/27/18	5	15,000
10/27/17	12	36,000	05/04/18	2	3,000
11/03/17	1	3,000	05/11/18	1	3,000
11/10/17	10	28,000	05/18/18	1	3,000
11/17/17	3	9,000	05/25/18	5	13,000
11/24/17	1	3,000	06/01/18	6	18,000
12/01/17	4	12,000	06/08/18	6	18,000
12/08/17	26	78,000	06/15/18	6	18,000
12/15/17	3	9,000	06/22/18	18	52,000
12/22/17	5	15,000	06/29/18	7	20,000
12/29/17	0	0	07/06/18	13	39,000
01/05/18	27	87,000	07/13/18	17	45,000
01/12/18	21	61,000	07/20/18	20	60,000
01/19/18	17	49,000	07/27/18	9	27,000
01/26/18	6	18,000	08/03/18	41	123,000
02/02/18	6	18,000	08/10/18	24	72,000
02/09/18	7	21,000	08/17/18	0	0
02/16/18	14	38,000	08/24/18	4	12,000
02/23/18	2	6,000	08/31/18	18	54,000
03/02/18	2	6,000	09/07/18	0	0
03/09/18	57	171,000	09/14/18	0	0

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03/16/18	18	54,000	09/21/18	42	124,000
03/23/18	1	3,000	09/28/18	33	98,000
03/30/18	10	30,000			
Totals				617	\$1,830,000

Issues, Problems or Challenges (“The reasons for slippage if established objectives were not met.”)

Project 1

- Planned objectives were accomplished.

Project 2

- Planned objectives were accomplished.

Financial Status Report (“A summary of project costs for the report period.”)

Final Financial Status Report

The Final financial report will be sent by the PI as a separate attachment to the AA using Form SF-425, Federal Financial Report.

Final Project Costs

Project 1 - Web-Based Damage Prevention Training Course

Billing Period	Billing Date	Payment Date	Contractual Amount Paid to Rutgers - CAIT
12/25/17-03/24/18	06/26/18	07/23/18	20,958.78
03/25/18-06/24/18	06/28/18	08/02/18	17,410.87
06/25/18-09/24/18	09/28/18	10/16/18	21,357.29
		Total Paid	59,726.94

Project 2

Personnel26,733.01

Fringe Benefits.....\$26,733.01 x 50.65%.....13,540.05

Travel.....0.00

Equipment.....0.00

Supplies.....0.00

Contractual.....0.00

Other.....0.00

Indirect.....0.00

Total Project 1 Costs.....	\$59,726.94
Total Project 2 Costs.....	40,723.06
Total Project Costs (Project 1 + Project 2).....	\$100,000.00
Project Costs paid with Mid-Term Progress Report	<u>33,890.00</u>
Project Costs requested with Final Progress Report.....	\$66,110.00

The fringe benefits rate is 50.65%, as indicated in the separate file attachment included with this Report – Fringe Benefits for NJBPU 2017 SDP Grant. The rate is determined by taking the first column (labeled PERS) and adding the total on page 1 (43.00) to the total on page 2 (7.65).

Requests of the AOR and/or PHMSA

No actions requested at this time..