



---

**New York State Office of the State Comptroller**  
Thomas P. DiNapoli

---

Division of State Government Accountability

# **Service Diversions for Maintenance and Capital Projects**

---

## **Metropolitan Transportation Authority - Long Island Rail Road**

---



Report 2010-S-63

March 2014

---

# Executive Summary

---

## Purpose

To determine whether the MTA Long Island Rail Road (LIRR) (1) effectively managed service diversions due to scheduled track maintenance and capital projects and (2) adequately informed the riding public about service diversions. Our audit covered the period January 1, 2009 through August 16, 2011.

## Background

The LIRR is a constituent agency of the Metropolitan Transportation Authority (MTA), and provides commuter rail service between New York City and the suburban counties of Nassau and Suffolk. A “service diversion” takes place when LIRR must close all or a part of a track line for capital projects or maintenance. When service diversions are underway, trains are diverted from their regular route so workers can safely access the tracks. Diversions should be scheduled in the most cost effective manner and to minimize the disruption on the riding public. Whenever commuters are expected to be affected by a planned diversion, Public Affairs is responsible for notifying the public in advance.

## Key Findings

- The annual Outage Plan for service diversions was reduced by 1,483 days (29 percent) in 2009 and 1,655 (35 percent) in 2010. These revisions were not approved in writing by executive management. Substantial changes such as these should be approved by executive management.
- The number of days planned for specific aspects (elements) of service diversions was not always supported. For example, nine of the 15 elements we sampled required 691 outage days, but there was no support for how this was determined. In addition, the actual cost for each element was not tracked to determine whether work was completed within budget.
- Train tracks were not always turned over to work crews in a timely manner to accomplish the work necessary for the service diversions. Our review showed several instances where tracks were turned over to crews 70 minutes late on average.
- The public is informed of large diversions, however, LIRR Public Affairs needs to do more to inform the public of other planned diversions.

## Key Recommendations

- Require executive management to review and approve significant changes in the Outage Plan.
- Track the actual costs of service diversion elements for comparison to budgeted costs.
- Support the resource requirements of planned diversions with adequate documentation.
- Ensure tracks are made available for service diversion work in a timely manner.
- Adequately inform the ridership about all service diversions.

## Other Related Audits/Reports of Interest

[Metropolitan Transportation Authority/New York City Transit: Subway Service Diversions for Maintenance and Capital Projects \(2010-S-34\)](#)

---

**State of New York  
Office of the State Comptroller**

**Division of State Government Accountability**

March 18, 2014

Mr. Thomas P. Prendergast  
Chairman and Chief Executive Officer  
Metropolitan Transportation Authority  
347 Madison Avenue  
New York, NY 10017

Dear Mr. Prendergast:

The Office of the State Comptroller is committed to helping State agencies, public authorities and local government agencies manage government resources efficiently and effectively and, by so doing, providing accountability for tax dollars spent to support government operations. The Comptroller oversees the fiscal affairs of State agencies, public authorities and local government agencies, as well as their compliance with relevant statutes and their observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations. Audits can also identify strategies for reducing costs and strengthening controls that are intended to safeguard assets.

Following is a report of our audit entitled *Service Diversions for Maintenance and Capital Projects*. This audit was performed pursuant to the State Comptroller's authority under Article X, Section 5 of the State Constitution and Section 2803 of the Public Authorities Law.

This audit's results and recommendations are resources for you to use in effectively managing your operations and in meeting the expectations of taxpayers. If you have any questions about this report, please feel free to contact us.

Respectfully submitted,

*Office of the State Comptroller  
Division of State Government Accountability*

## Table of Contents

Background	4
Audit Findings and Recommendations	5
Managing Diversions	5
Recommendations	7
Informing the Public	7
Recommendation	8
Audit Scope and Methodology	8
Authority	8
Reporting Requirements	9
Contributors to This Report	10
Agency Comments	11

**State Government Accountability Contact Information:**

**Audit Director:** Carmen Maldonado

**Phone:** (212) 417-5200

**Email:** [StateGovernmentAccountability@osc.state.ny.us](mailto:StateGovernmentAccountability@osc.state.ny.us)

**Address:**

Office of the State Comptroller  
 Division of State Government Accountability  
 110 State Street, 11th Floor  
 Albany, NY 12236

This report is also available on our website at: [www.osc.state.ny.us](http://www.osc.state.ny.us)

---

## Background

---

The Metropolitan Transportation Authority (MTA) is a public benefit corporation providing transportation services in and around the New York City metropolitan area. The MTA is governed by a Board of Directors, whose 23 members are nominated by the Governor and confirmed by the State Senate. The MTA includes six constituent agencies, one of which is the Long Island Rail Road (LIRR), which provides commuter rail service between New York City and the suburban counties of Nassau and Suffolk.

LIRR is responsible for completing capital projects and maintaining its tracks to ensure that trains run safely. To do this work, it is sometimes necessary to temporarily close down either all or a portion of a track (called a service diversion). When possible, LIRR diverts service to another track or uses shuttle buses to take the public from one station to another. To minimize the effect on customers, LIRR generally schedules diversion work for off-peak hours such as midday, night, and weekend hours.

Several LIRR departments jointly develop an Annual Track Outage Plan (Outage Plan) to determine where and when diversions will be needed. Diversions for large capital projects and planned track maintenance have several “elements” that may each require separate track outages over the course of time. LIRR’s Service Planning Department factors diversions into its development of train timetables and, accordingly, issues revised timetables throughout the year. The revisions may include adjustments to train departure/arrival times, partial or full cancellation of some trains, reduced service, or alternate transportation by bus.

Whenever commuters are expected to be affected by a planned diversion, LIRR’s Public Affairs is responsible for notifying the public, in advance. In addition, on an as-needed basis, LIRR deploys personnel to provide assistance to commuters at affected stations during diversions.

In 2010, the LIRR Capital Program was provided a budget of \$165 million for capital projects, including service diversions. The 2010 budget for the Annual Track Program, which includes planned track rehabilitation and maintenance, was \$62.4 million.

---

# Audit Findings and Recommendations

---

## Managing Diversions

The 2009 and 2010 Outage Plans for LIRR included 160 “elements.” As a result of our testing and examination of records pertaining to this diversion work, we noted several weaknesses and improvement opportunities including the following:

- We attempted to verify that 15 Plan “elements” which required track outages in 2009 and 2010 had supporting documentation to account for the number of track outage days required to complete the “element” of work. We found there was no supporting documentation to justify the need for 691 days of track outage time associated with nine of the “elements.”
- LIRR’s Outage Plan, which includes a list of scheduled diversions for a calendar year, is developed about one to two years in advance. The initial Outage Plan is circulated to executive management for approval. However, this is the only time executive management is required to review the Outage Plan, even though major projects can be removed from the Plan. For example, in 2009, the initial Outage Plan included 5,162 days where tracks would not be available, while the final Outage Plan had only 3,679 days (a 29 percent reduction). Similarly, the initial Outage Plan for 2010 included 4,733 days where tracks would not be available, which was reduced to 3,078 days (a 35 percent reduction). We believe executive management needs to more closely review significant changes to the Outage Plan to ensure work removed from the Outage Plan was rescheduled and the workers released from the reduction in the Outage Plan are effectively redeployed.

LIRR officials indicated that changes to the Outage Plan are approved by the Chief Program Officer and General Manager of Service Planning. They believe this is sufficient for all Plan changes. They also advised that staff summaries provided to authorize periodic timetable changes provide sufficient notice to executive management regarding upcoming projects to be completed within the effective period of the timetable. These staff summaries require the approval of the President of LIRR. However, we reviewed these staff summaries and found they do not provide information regarding items removed or changed from the original Outage Plan.

- Whenever Plan “elements” of work are performed, LIRR employees are required to prepare a Daily Work Activity Report (Report) to show when each track is requested to be available for a diversion, when the track is actually made available for a diversion and the actual hours worked to complete the diversion. We reviewed 29 Reports pertaining to seven Plan “elements.” We found that 15 of the 29 Reports showed tracks were on average made available for work 70 minutes late. Only two Reports supported that the track were made available on time. For nine Reports, there was no information to support whether track were made available for work on time. In addition, for these same 29 Reports, we observed that two showed tracks were returned to service on average 40 minutes late,

two show tracks were returned on average 86 minutes early, and nine reports show that tracks were returned to service on time. When tracks are not made available for service on time or when tracks are not returned to service on time, the ridership is further inconvenienced. In all instances, Reports should be supported with information showing whether or not tracks were made available on time for diversion work and were put back in service on time to serve the ridership.

- The time that the Plan schedules for service diversions may sometimes be excessive. For example, we noted that one project was scheduled 83 days of track diversion time, but the work was completed in 29 days. Another project allocated 81 days of track outage for a diversion project, but only 21 days was necessary to complete work.

In responding to the observation, LIRR officials stated that the number of days scheduled for a project presented a “window” in which to accomplish the work and employees could complete the work anytime within that window of days. We do not believe that providing such a flexible time frame for work created an incentive to completing work in a timely manner.

- For the nine months ended May 16, 2010, LIRR spent approximately \$1.4 million on contracted bus and van services for alternative rider transportation while six of the sampled elements were in progress. However, LIRR had no standard formula to determine how much alternative transportation was optimally needed for each element of a service diversion. In addition, the LIRR did not retain logs or other documentation to verify that payments for contracted bus and van services corresponded to the availability of the required number of such vehicles. Further, LIRR is not analyzing the actual usage of the alternative vehicles to assess whether, in fact, there is too much capacity being paid for. Tighter controls to address these observations are needed to ensure cost effectiveness.

In responding to these findings, LIRR officials stated that they examine ridership, the days of the week that service diversions affect, travel patterns and other factors to determine the number of alternative vehicles required. They also indicated that field staff are required to notify management if buses and vans are not furnished as required. They added that logs to account for alternative vehicle use will be retained in the future.

- Sometimes two or more diversions can be scheduled at the same time (known as piggybacking) to ensure that the overall time for track diversions is minimized. This is not only cost effective, but it also minimizes inconveniences to the ridership. While LIRR project managers were sometimes able to identify when piggybacking was taking place and while LIRR officials assured us that this practice was incorporated to diversion scheduling, there was no documentation to demonstrate whether and to what extent the efficiency of piggybacking was being planned and attained. We believe that LIRR should maximize the use of this practice and the Outage Plan should document where it is to be applied.
- We also note that even though specific elements are listed on the Outage Plan, executive

management only tracks diversion costs relating to the overall project. We believe that diversion costs should be tracked by element, since this is how the Outage Plan is designed and this would provide management with more precise information about costs and scheduling which may help to ensure that projects are completed on time and on budget.

## Recommendations

1. Require executive management approval of significant changes to the Outage Plan.
2. Determine why tracks are not turned over for work in a timely manner and take corrective action.
3. Require Daily Detail Work Activity Reports to be completed and review them periodically to ensure work is being done as stated.
4. Ensure logs of buses requested and received are turned over to appropriate management for review.
5. Promote and document the use of piggybacking to reduce diversion instances and diversion cost.
6. Develop a method to track diversion costs relating to elements.

## Informing the Public

When trains are diverted, it is crucial that the riding public be given advance notification. When there is less than adequate notice of diversions, the inconvenience to the public is exacerbated. LIRR's Public Affairs Division is responsible for public notification about train changes due to planned diversions. To meet its responsibility, the Public Affairs Division produces revised train timetables which provide the public with some useful information. Public Affairs officials stated that they also develop production schedules listing the various communications and steps that will be used to alert the public to transit changes for those Plan "elements" that have impact on the largest numbers of riders. They added that diversions impacting fewer riders did not require production lists and the ridership was informed through posters, on-seat flyers, and email alerts. However, based on the following, there appears to be further improvement opportunity for informing the public about service diversions:

- We noted that 40 of the "elements" in the Outage Plan for 2009 and 2010 provided for the use of bus services as an alternative during the service diversion. Yet, only five of the "elements" had an accompanying production schedule to cover necessary public information requirements. There was no documentation indicating why the other 35 "elements" that required bus services were not also supported with a production schedule. Since bus service is a significant transit change, we conclude that LIRR should provide a production schedule for each "element" that anticipates bus use. At a minimum, there should be documentation stating why such instances do not require a production schedule

of necessary public notification steps. At the closing conference, LIRR officials advised us they will document actions taken to address planned service diversions.

## Recommendation

7. Develop a written strategy which includes procedures for preparing for and communicating with customers regarding all planned service diversions. This strategy should address the number of passengers affected, duration of diversion, alternative transportation arrangements (including busing requirements), advertisement/notification requirements, among other factors.

## Audit Scope and Methodology

We audited the MTA Long Island Rail Road (LIRR) to determine whether it effectively managed service diversions due to scheduled track maintenance and capital projects and whether the riding public is adequately informed of service diversions. Our audit covered the period January 1, 2009 through August 16, 2011.

We selected 15 of the 160 elements in LIRR's 2009 and 2010 Track Outage Plans (both the initially-approved plans and the July final plans) for our review. We interviewed Public Affairs, Service Planning, Project Management, Engineering and Transportation Services officials to obtain an understanding of their planning of scheduled track rehabilitation and capital work, as well as their efforts to minimize the effect of these diversions on customers. We also reviewed track access and notifications to customers about upcoming service diversions.

We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

In addition to being the State Auditor, the Comptroller performs certain other constitutionally and statutorily mandated duties as the chief fiscal officer of New York State. These include operating the State's accounting system; preparing the State's financial statements; and approving State contracts, refunds, and other payments. In addition, the Comptroller appoints members to certain boards, commissions and public authorities, some of whom have minority voting rights. These duties may be considered management functions for purposes of evaluating organizational independence under generally accepted government auditing standards. In our opinion, these functions do not affect our ability to conduct independent audits of program performance.

## Authority

We performed this audit pursuant to the State Comptroller's authority as set forth in Article X, Section 5 of the State Constitution and Section 2803 of Public Authorities Law.

## Reporting Requirements

---

A draft copy of this report was provided to MTA officials for their review and comment. Their comments were considered in the preparation of this report and are included in their entirety at the end. The MTA generally agreed with our recommendations and has taken actions to implement most of them.

Within 90 days after final release of this report, as required by Section 170 of the Executive Law, the Chairman and the Chief Executive Officer of the Metropolitan Transportation Authority shall report to the Governor, the State Comptroller, and the leaders of the Legislature and fiscal committees, advising what steps were taken to implement the recommendations contained herein, and where recommendations were not implemented, the reasons why.

---

## Contributors to This Report

---

**Carmen Maldonado**, Audit Director  
**Robert Mehrhoff**, Audit Manager  
**Erica Zawrotniak**, Audit Supervisor  
**Alina Mattie**, Examiner-in-Charge  
**William Gomes**, Staff Examiner  
**Carlitos Rodriguez**, Staff Examiner  
**Slamon Sarwari**, Staff Examiner

---

## Division of State Government Accountability

---

Andrew A. SanFilippo, Executive Deputy Comptroller  
518-474-4593, [asanfilippo@osc.state.ny.us](mailto:asanfilippo@osc.state.ny.us)

Tina Kim, Deputy Comptroller  
518-473-3596, [tkim@osc.state.ny.us](mailto:tkim@osc.state.ny.us)

Brian Mason, Assistant Comptroller  
518-473-0334, [bmason@osc.state.ny.us](mailto:bmason@osc.state.ny.us)

---

### Vision

A team of accountability experts respected for providing information that decision makers value.

### Mission

To improve government operations by conducting independent audits, reviews and evaluations of New York State and New York City taxpayer financed programs.

# Agency Comments

347 Madison Avenue  
New York, NY 10017-3739  
212 878-7200 Tel  
212 878-7030 Fax

**Thomas F. Prendergast**  
Chairman and Chief Executive Officer



## Metropolitan Transportation Authority

State of New York

October 30, 2013

Ms. Carmen Maldonado  
Audit Director  
The Office of the State Comptroller  
Division of State Government Accountability  
123 William Street – 21<sup>st</sup> Floor  
New York, NY 10038-0001

**Re: Draft Report #2010-S-63 (Service Diversions for Maintenance and Capital Projects)**

Dear Ms. Maldonado:

This is in reply to your letter requesting a response to the above-referenced draft report.

I have attached for your information the comments of Ms. Helena E. Williams, President, Long Island Rail Road, which address this report.

Sincerely,

A handwritten signature in black ink, appearing to read "T.F.P.", with a long horizontal line extending to the right.

Thomas F. Prendergast  
Chairman and Chief Executive Officer

Attachment

*The agencies of the MTA*  
MTA New York City Transit  
MTA Long Island Rail Road

MTA Metro-North Railroad  
MTA Bridges and Tunnels

MTA Capital Construction  
MTA Bus Company

Jamaica Station  
 Jamaica, NY 11435-4380  
 718 558-8252 Tel  
 718 657-9047 Fax

Helena E. Williams  
 President



October 18, 2013

Mr. Thomas F. Prendergast  
 Chairman and Chief Executive Officer  
 Metropolitan Transportation Authority  
 347 Madison Avenue  
 New York, NY 10018

**RE: New York State Comptroller's Request for Response  
 Service Diversions for Maintenance and Capital Projects –  
 2010-S-63**

Dear Chairman Prendergast:

As required by Section 170 of the Executive Law, detailed below are the updated actions that have been taken to address the recommendations contained in the State Comptroller's Audit of Service Diversions for Maintenance and Capital Projects.

Long Island Rail Road (LIRR) is committed to operating a safe, accessible, clean, and cost-effective, customer-focused transportation system that runs on time, and is comfortable and user-friendly. Managing maintenance and capital projects in such a way as to both complete the actual work effectively and minimize impacts on customers is a responsibility that LIRR considers to be of utmost importance. Much right-of-way project work does not require any change in the train service schedule because it is relatively minor in scope. In other cases, however, track outages are required. These are often scheduled for the middle of the day, when scheduled service is lighter and fewer customers will be affected. In some cases, the outage is extensive enough to require the provision of alternative transportation as needed (busing). Informing the public in advance by various methods of communication is essential.

The State Comptroller's audit contains a series of findings and recommendations related to LIRR's process for scheduling track outage time and informing the public of train service impacts. This process is extremely complex, but one which the LIRR believes it performs satisfactorily. Many track projects are conducted each day in such a manner as to have limited or no effect on the LIRR's daily customers. LIRR's customer communication is extensive. Tens of thousands of customers are reached via printed and social media, including station bulletins, e-mail alerts, Twitter and Facebook.

The Department of Program Management (DPM) has and continues to seek ways to complete projects with minimal impact to operations. LIRR has been singled out by the Federal Transit Administration (FTA) for its effectiveness in this area. In its Project Management Oversight Contractor Monthly Reports, the FTA evaluated LIRR's

MTA Long Island Rail Road is an agency of the Metropolitan Transportation Authority, State of New York  
 Thomas F. Prendergast, Chairman and Chief Executive Officer

**Mr. Prendergast**  
**October 18, 2013**  
**Page 2**

performance of capital project work. Some recent FTA observations for the Queens Boulevard Bridge Project (PN-B8) included:

- In the May 2013 report, the FTA noted, “In our opinion, the management staff has done an excellent job in managing some difficult contractor issues, effectively managing track outages and flagmen and overall financial performance.” The report also notes “Some of the strategies the LIRR used included reviewing the project delivery method and reviewing the project execution to avoid the need for track outages.”
- In the July 2013 report, the FTA attributed the revised budget from \$23.1 million to \$18.9 million construction bids and “lower-than-expected flagging costs.” The report goes on to say “Flagging proved to be largely unnecessary as a result of LIRR’s project execution strategy.”

Nevertheless, LIRR is engaged in continual process improvement. It welcomes the State Comptroller’s recommendations. This memorandum summarizes LIRR’s response to the audit, both clarifying facts and procedures that may not have been fully understood by the auditors and outlining steps that will be taken going forward to further strengthen project oversight and minimize customer impacts.

**Recommendation No. 1**

- **Require executive management approval of significant changes to the Outage Plan.**

**LIRR Response:**

- **Managing Plan Changes**

The LIRR agrees with this recommendation and, in fact, executive management approval is already required for all significant changes to the Outage Plan. All significant outage changes are approved by the President; in other changes this responsibility is delegated to the senior executive management team.

The initial version of LIRR’s annual Track Outage Plan is subjected to a strict concurrence process up to and including the operating department heads, the Senior Vice President of Operations and the President. Over the course of the year, the Department of Program Management (DPM), Engineering, Transportation Services and Service Planning (among other departments as needed, e.g. Procurement) meet monthly to discuss the status and coordination of the various activities (elements) in the Plan. Changes to the original Plan are often required to reflect weather impacts, availability of resources and materials, revised budget estimates and the accommodation of multiple projects occurring simultaneously. These proposed changes are discussed at the monthly meetings and agreed to by Executive Management: the Chief Program Officer – DPM, General Manager – Service Planning, Chief Transportation Officer, and Chief Engineer, or their designated representatives – and captured in the meeting minutes kept by the Scheduler from DPM as per Chief Program Officer Notice DPM-2010-05

**Mr. Prendergast**  
**October 18, 2013**  
**Page 3**

Meeting Minutes. After all meetings, the Scheduler modifies the Plan. At the subsequent meeting, these minutes and the subsequent revised version of the Plan are distributed and discussed. Additionally, concerns regarding any change are forwarded to the Senior Vice President – Operations for final resolution. In all cases LIRR ensures there is minimum impact to customers and maximum benefit to the company derived from down track time.

On top of this internal approval process, major schedule modifications are approved by the President if they require timetable changes, or need to be reported to the MTA Board.

The report notes a reduction of 1,296 days in 2009 and 1,945 days in 2010 from the initial Track Outage Plan to the final version. The report expresses a concern that work removed from the Plan should be rescheduled and workers redeployed efficiently. The majority of the reductions in days from both years' Plan were related to the Queens Boulevard Bridge Project (PN-B8). The project was rescheduled due to a revised construction strategy that used Force Account Labor for the top of the bridge, e.g. waterproofing and a 3<sup>rd</sup> party contractor for the street level work as opposed to using the contractor for the entire job. This strategy was developed by the President and LIRR Senior Management, and resulted in cost savings and reduced track outage time.

- **Establishing Project Time Frames**

While LIRR appreciates the State Comptroller's concern that longer "windows" could discourage project managers from completing their projects swiftly, in actual practice this is not the case. Projects are most often completed well before the expiration of the window. The two projects cited in the report were completed in less time than that which was allotted (54 days and 60 days early, respectively). In both instances, the schedules were returned to normal before being further refined to accommodate the next scheduled elements on the Track Outage Plan.

It is important to note that these two projects had minimal impact to the riding public. For these projects, the entire timetable "window" was adjusted for a specific schedule. Instead of the customer seeing some trains adjusted by five to six minutes, the entire timetable was adjusted, thus avoiding confusion among passengers. This also allowed the Engineering Department the flexibility to perform piggybacked tasks.

Establishing a "window" guarantees that important, signal track maintenance and repairs are accomplished in a safe and efficient manner. The audit report noted two examples where "Plan schedules for service diversions may sometimes be excessive" and that providing such a flexible time frame does not "create an incentive to completing work in a timely manner."

It is important to understand that the "window" established for the completion of a track project does not represent the estimated amount of time required for completion. Instead, it generally reflects the amount of track outage time made available by Service

**Mr. Prendergast**  
**October 18, 2013**  
**Page 4**

Planning in the train timetable to complete multiple track projects during a seasonal period. In order to minimize customer confusion and ensure availability of equipment and crews, a set number of timetables are created each year and the operating departments know that they must plan their work in advance to fit within these windows (the timetables). Timetables trigger job picks by unionized personnel. These can be lengthy and costly if held frequently. As LIRR gains greater specificity on the scope and means of a track project, the window is refined further, often to a duration that is much shorter than the original "window."

**Implementation Status: *Complete***

**Recommendation No. 2**

- **Determine why tracks are not turned over for work in a timely manner and take corrective action.**

**LIRR Response:**

The LIRR agrees with this recommendation. There is a formal process for determining when it is appropriate for track outages to begin and end, and whether this is accomplished in a timely manner.

Decisions to delay the availability of track on a particular day of a project are driven by the goal of providing efficient train service and ensuring the safety of LIRR customers and employees. Such delays can be due to operating incidents such as late trains (i.e. tracks may need to remain open to accommodate a train running late that needs to move through in order to transport its riders to their destinations). For example, track events occurring on the days reviewed by the State Comptroller included an Amtrak derailment and a gas leak. These are the types of significant events that would override a track outage plan.

Whenever a track is not turned over on time, Engineering works with Transportation Services to determine the cause of such delays and investigate any remedial actions that are deemed necessary to mitigate such delays during future projects.

Track Usage meetings occur weekly where departments discuss the need for track outages related to current, on-going projects as well as projects to begin as much as four weeks in the future. The resulting minutes of these meetings include summaries that list the various projects discussed, the track outage times requested by the departments and whether the times are approved or pending approval.

During the course of major projects with extensive track outages, communication from the field to management is continuous via e-mails and phone calls regarding when track is taken out and returned to service as well as the interim status of on-going work. The LIRR's highest priority must be the safety of the workers on the right-of-way. It must ensure sufficient demobilization and clearance time of the employees. If an incident occurs or a project is running late, the appropriate departments are notified so that the

**Mr. Prendergast**  
**October 18, 2013**  
**Page 5**

impact of the potential late return of a track can be mitigated to the extent possible. During those cases when a track is returned late, an incident and/or lessons learned report is issued to LIRR Management with follow-up corrective actions.

Meetings between Operations, Safety, and other Senior Staff are routinely held to discuss future construction and maintenance projects requiring track outages and means for obtaining and returning track as expeditiously as possible while avoiding potential impacts to customers.

**Implementation Status: *Complete***

**Recommendation No. 3**

- Require Daily Work Activity Reports to be completed and review them periodically to ensure work is being done, as stated.

**LIRR Response:**

The LIRR agrees with this recommendation.

During a project, Engineering uses a Daily Work Activity / Daily Production Report to monitor and record track maintenance work. The report provides fields to capture times when track is requested and when track is received as well as a Comments section to provide information and/or explanations of events, as warranted. Some information is not required to be captured on the Report depending on the nature of the project, e.g. preparation work related to mechanized ties.

Engineering management will reinstruct its personnel to ensure all information is provided in the Daily Work Activity Report.

Engineering will also ensure Activity Reports are reviewed by management for completeness and accuracy. Management will also investigate occurrences involving track not being made available on time or returned late.

**Implementation Status: *Complete and Ongoing***

**Recommendation No. 4**

- Ensure logs of buses requested and received are turned over to appropriate management for review.

**LIRR Response:**

The LIRR agrees with this recommendation and has a comprehensive set of procedures in place to ensure that the appropriate level of busing is provided for each outage.

Before a busing program goes into effect, LIRR ensures that it reaches out to its customers to communicate the details of the program including where and when buses will be made available and alternate travel options such as traveling at a different time or along a different branch. These alternative travel options may require busing. To the

**Mr. Prendergast**  
**October 18, 2013**  
**Page 6**

extent that customers deem these alternative travel options preferable, fewer customers may require busing. Therefore, the fact that at times there may be few passengers riding the buses is in part attributable to LIRR's effectiveness in communicating with its customers in advance of a scheduled busing program.

In fact, during 2013, LIRR was recognized by the FTA for implementing a management strategy that significantly reduced diversion costs, including flagging and busing, on the Queens Boulevard Bridge Project, and for the Track Program. The Service Planning Department creates and issues a Program that includes detailed bus schedules and instructions for field supervision regarding busing during a service diversion. The Program documents or logs buses that are ordered but specific forms or logs are not utilized to track actual bus activity. Information in the Program includes the number of buses ordered, the dates the buses are required and the locations the buses are to report. During a planned outage requiring bus service Customer Services field supervision are stationed at bus reporting locations. Customer Services tracks the expected number of buses utilizing Bus Manipulation sheets provided by Service Planning. If during an event Customer Services identifies buses that were ordered but did not arrive it advises the bus company's dispatcher (who is often on-site during a planned event) or Service Planning if the dispatcher is unreachable. After an event, Customer Services notifies Service Planning via emails and/or phone calls of exceptions of buses that had been ordered but never arrived. After receiving notification of exceptions Service Planning:

- Applies exceptions to their review of vendor invoices and dispute charges appearing on the invoice.
- Sends exceptions to LIRR Procurement & Logistics - Contracts for investigation as to whether the vendor is in violation of the busing contract.
- Maintains an internal file of all exception issues related to busing contracts to be considered when planning for future programs.

Through field observation, Service Planning actively manages busing programs during planned outages by monitoring buses in the Program vs. actual buses used. For instance, during the Hog Island and Powell Creek Bridge Project busing was reduced from 93 buses per day during the first weekend to 73 per day over the remaining four weekends as a result of observations in the field. One solution agreed to by both Service Planning and MTA Long Island Bus eliminated bus runs composed entirely of extra buses after observing these buses were running empty, leading to a reduction of six (6) buses. In addition, since a Long Beach Bus would pass the Island Park Station, Service Planning combined Long Beach and Island Park buses, which lead to an additional reduction of 14 buses.

To further enhance its procedure of managing busing, Service Planning is in the process of hiring a Busing Coordinator who will be responsible for coordinating all aspects of bus call outs (both planned and unplanned) and oversight for the bus service provider contracts.

**Implementation Status: *Complete and Ongoing***

**Mr. Prendergast**  
**October 18, 2013**  
**Page 7**

**Recommendation No. 5**

- Promote and document the use of piggybacking to reduce diversion instances and diversion costs.

**LIRR Response:**

The LIRR agrees with this recommendation, and the LIRR makes every effort to maximize opportunities for piggybacking as discussed and documented during the weekly Track Usage meetings.

In 2010 there were numerous projects that took advantage of piggybacking on the same track outage. The following is a list of project examples that piggybacked in 2010:

- During the November 2009 thru March 2010 timetable period, the Signal Department performed prep work for the Amity-Wantagh Signal Cutover project on the same weekdays the Track Department was laying material for mechanized tie replacement between Rockville Centre and Wantagh.
- In March 2010, three projects used the same weekday outage on the Montauk Branch. The projects included the (1) Mechanized Tie Wantagh-Babylon, (2) Third Rail and Protection Board Installation between Wantagh and Amityville and (3) installation of four switches at Amity interlocking.
- In April 2010, the Track Department surfaced the tracks and switches in Queens Interlocking at the same time that two grade crossings (Franklin Avenue and Covert Avenue) were replaced on the Hempstead Branch.
- In April 2010, National Grid performed remediation work on the LIRR Right-of-Way under the same weekend outage that the Connetquot Avenue crossing was replaced between Babylon and Sayville on the Montauk Branch.
- In April 2010, the Penataquit Road grade crossing was replaced on the Montauk Branch during the same outage the Sperry track car was performing rail testing and inspection.
- In the May thru September 2010 timetable on the Port Washington Branch, the mechanized ties were being installed at the same time retaining wall work was being performed.
- In May 2010, the weekend outages for the Hog Island and Powell Creek bridge reconstruction on the Long Beach Branch were also used to install an emergency generator at Wreck Lead Bridge.
- During a weekend in October 2010, two major projects were able to coordinate using the same 48-hour weekend outage. The first weekend of the Jamaica Signal Cutover was performed at the same time the Track Department installed a new switch at Divide Interlocking at Hicksville.

Most recently, in 2013, numerous piggybacking opportunities were implemented, including:

- Mainline Concrete Ties and Water-Proofing of Farmers Blvd Bridge

**Mr. Prendergast**  
**October 18, 2013**  
**Page 8**

- Massapequa Station Improvements, Massapequa Pocket Track construction, and Massapequa Replacement of Direct Fixation Track Fasteners
- Atlantic Tunnel Lighting, Communications Systems, and 1/2 Tie Replacements
- Super Outage East Side Access (ESA) to construct the bypass at the East River Tunnel (ERT) and the ERT Line 4 Total Track Replacement Switch Work.

**Implementation Status: *Complete and Ongoing***

**Recommendation No. 6**

- Develop a method to track diversion costs relating to elements.

**LIRR Response:**

The LIRR agrees with the intent of this recommendation and will explore tracking costs at the element level.

The audit report states that, “diversion costs should be tracked by element, since this is how the Outage Plan is designed and this would provide management with more precise information about costs and scheduling which may help to ensure projects are completed on time and on budget.”

LIRR breaks down estimates by task, tracking actual costs for all Capital Program projects including those requiring track outages, e.g. Design and Construction from Project Management, Force Account (LIRR forces) and 3<sup>rd</sup> Party (Contractors) as well as Force Account Labor and Materials. Other costs are included as needed, e.g. busing, work trains.

Labor costs are captured in the Corporate Time & Attendance Management System (CTAMS) while other costs are captured in the Cost Management Information System (CMIS).

LIRR monitors the progress of work at the element level and finds it more practical to track the aforementioned costs, including actual vs. budget, by task and on an overall project basis, as the work progresses up to and including completion. The Office of Management & Budget and DPM manage the reporting of these costs utilizing reports from CMIS as well as internally prepared reports including the Track Program Progress Report.

In May 2013, the FTA noted LIRR’s performance in managing the Queens Boulevard Bridge Project stating that “LIRR has done an excellent job in managing the finances on this project.”

**Implementation Status: *Ongoing***

**Mr. Prendergast**  
**October 18, 2013**  
**Page 9**

**Recommendation No. 7**

- Develop a written strategy which includes procedures for preparing for and communicating with customers regarding all planned service diversions. This strategy should address the number of passengers affected, duration of diversion, alternative transportation arrangements (including busing requirements), advertisement/notification requirements, among other factors.

**LIRR Response:**

- **Planned Service Disruptions**

The LIRR agrees with this recommendation.

The LIRR recognizes the importance of effectively communicating information on planned service diversions, and for this reason dedicates vast resources to accomplishing this task. A comprehensive set of practices and protocols, developed after many years of experience and lessons learned exercises, is followed. The level of communication is tailored to the estimated impact of the project.

That having been said, by December 2013, LIRR Public Affairs will finalize and implement extensive written procedures on levels and types of communication methods to be used with customers regarding all planned service diversions. These procedures will reflect the following practices currently in effect:

- Public Affairs, in coordination with the LIRR's Service Planning and Engineering Departments, develops communication plans, on a case-by-case basis, for track work projects that impact LIRR customers.
- Service Planning takes the lead role in assessing the potential impact of a given track work program on customers, maintaining a "Track Work & Special Program" calendar, and issuing a Special Program that cites the number of passengers affected, the duration of the diversion and where appropriate, alternative travel arrangements (including busing).
- The LIRR's Public Affairs Department uses the "Track Work & Special Program" calendar and the Special Programs issued by Service Planning to assess public notification requirements.
- Public Affairs will implement a new practice of preparing Production Schedules, which include paid advertising, where appropriate, for all planned outages. Versions of the schedules will vary depending on the nature and complexity of the event.

- **Communications with Customers**

Public Affairs staff members tailor communication campaigns based on factors including but not limited to duration of project, scope of work, ripple effects on other branches, and number of riders affected. The LIRR's communications strategy is built

**Mr. Prendergast**

**October 18, 2013**

**Page 10**

largely around rapidly evolving use of the MTA website, a customer e-mail and text message alert system, and social media to communicate real time information to customers. The riding public's broad and rapid adoption of increasingly sophisticated smartphones and other personal electronic devices has facilitated broader dissemination of LIRR communications. This has helped the LIRR adopt a "know before you go" communications strategy.

The LIRR has continued its efforts to improve customer communications, including expanded use of social media tools to alert customers about service disruptions in real time. The LIRR's social media efforts, using Facebook and Twitter, were recognized by The New York Times in the wake of the service disruptions caused by Hurricane Sandy. The LIRR's Public Information Office, which operates 24/7, continues to improve the reliability, accuracy, and frequency of customer email alerts, station announcements, electronic branch line messages, onboard announcements, website updates, and overall coordination of customer communication, including with the media via the MTA Press Office, especially during service disruptions and diversions.

In March 2013, the LIRR launched its first-ever Customer Service Center (CSC) integrating all customer service functions under one area to improve customer satisfaction – offering one-stop shopping for customers by offering the ability to handle schedule information, fare information, policy inquiries, Mail&Ride, Lost & Found, Ticket Refunds or customer comments and concerns. In addition, CSC Representatives are available from 6AM to 10PM, daily, including weekends & holidays.

A recent LIRR survey found that 80% of LIRR customers are "satisfied" with LIRR service disruption communications, including 12%, who state they are "very satisfied." When asked how they would most prefer to receive service disruption explanations, 88% of customers prefer electronic media that require a mobile device or computer. Only 12% prefer more traditional methods of communications. The breakdown is as follows:

- 43% Email/text message alerts
- 39% MTA website/apps
- 6% Social media (Twitter, Facebook, YouTube, Instagram, Flickr )
- 7% Printed train seat notice
- 3% News media (TV/radio announcements, newspapers, etc.)
- 2% Other

Based on the 2013 Customer Satisfaction Survey results, very high customer satisfaction survey scores were given to boarding station communications pertaining to "Electronic/LED Signs" (89%), and "Station Signage" (88%). In addition, customers indicated higher satisfaction this year related to boarding station communications, specifically "Audio Announcements during Service Disruptions", compared to last year.

While recognizing that print notices are essential for certain types of diversions, the communications preference of the vast majority of LIRR customers suggest that the

**Mr. Prendergast**  
**October 18, 2013**  
**Page 11**

time could be approaching when seat notices may be replaced by more effective electronic communications - depending on the willingness of customers to sign up for e/text alerts, and proactively access other "pushed" information.

**Implementation Status: *Complete and Ongoing***

We would like to extend our gratitude to the Office of the State Comptroller for conducting this audit. We recognize that state audits can provide important recommendations and insights for strengthening LIRR our operations and maximizing productivity and efficiency. We believe the LIRR's action plan addresses the recommendations of the State Comptroller's Office. Please contact me should you require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Helena E. Williams", with a long, sweeping flourish extending to the right.

Helena E. Williams  
President