

**DRINKING WATER & POLLUTION CONTROL PROJECT AUDITS**  
**Event Date – February 2014**  
 The role of the auditor was to conduct a thorough evaluation of all financials on all completed drinking water and pollution control projects funded with State Revolving Fund (SRF) monies. Prior to Lean ~1,100 out of 2,160 accounts remained open.

A new approach was needed to tailor the level of audit to the level of account risk, and to streamline the closeout process to eliminate the backlog of open accounts and reallocate unspent project funds.

**GOALS AND KEY PERFORMANCE INDICATORS (KPIs)**

- Eliminate the backlog by March 2018.
- Return unspent funds to the State Revolving Fund (SRF).

**STATUS**

Total as of December 31, 2016	
Funds Returned	\$3,139,497
Accounts Closed	930

- This project has been on hold due to staff losses and retirements but will pick back up following a refill of positions which are currently under active recruitment.
- We will resume closing out projects March 2017 and eliminate the backlog by March 2018.



**PETROLEUM CLEANUP FUND**  
**Event Date – February 2014**  
 The lead-time to issue reimbursement checks to our customers (tank owners and their consultants) was too long. Redundancy in the review and appeal process duplicated efforts and increased the length of time it took to receive a reimbursement from the State.

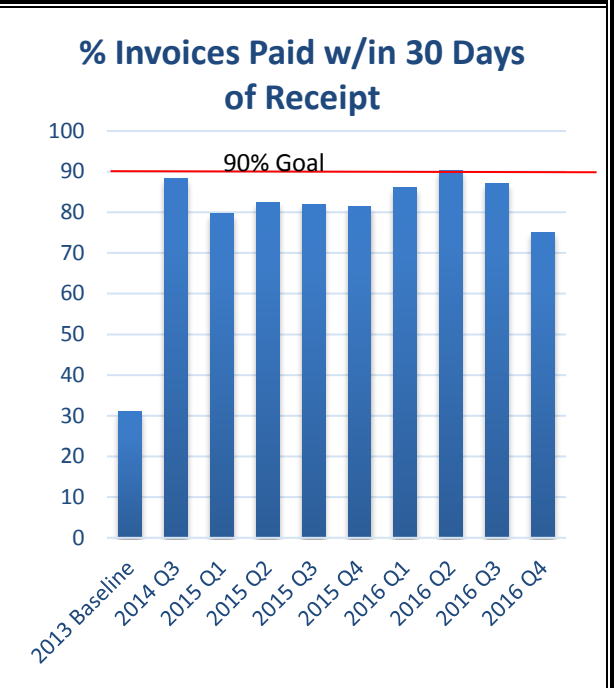
An innovative approach was needed to both free-up staff time involved in reimbursement activity and money owed to the public and consulting community.

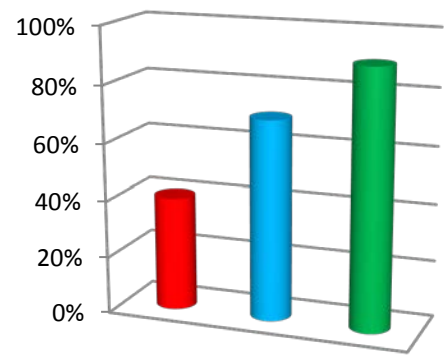
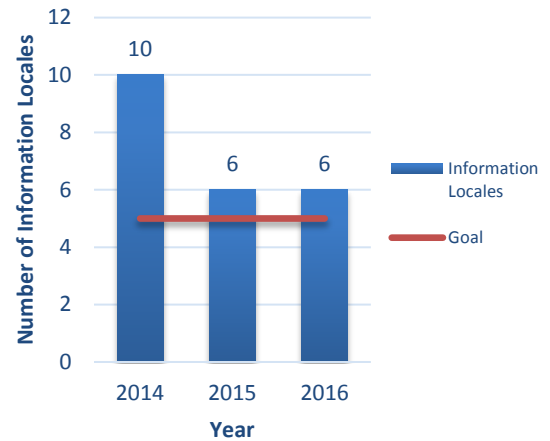
**GOALS AND KEY PERFORMANCE INDICATORS (KPIs)**

- 90% reimbursement w/in 30 days of claim receipt date.

**STATUS**

- Throughout this quarter, we have been externally testing our online portal allowing for both filing reimbursement claims and for establishing Petroleum Cleanup Fund eligibility. Three consultants are filing reimbursement claims through the new system. This testing has been critical for identifying bugs and has also helped identify other improvements.
- We are working to determine what additional changes may be needed prior to a wider soft rollout of the system.
- During this quarter, staff received training on software to create instructional videos for new system users. This and additional guidance will be provided during a "Consultant's Day" being planned for spring 2017.
- There was a small dip in this quarter's percentage of invoices paid within 30 days. We are investigating the cause and expect the percentage to rebound next cycle.



<p><b>DEC INCIDENT TRACKING</b> <b>Event Date – July 2014</b></p> <p>The goal of this event was to better understand how the current Department-wide incident tracking system was performing and being used by DEC staff and then to make improvements to increase usage.</p> <p>Benefits include: quicker, coordinated complaint responses; increased assurance that complaints have been addressed; the creation of a record; and the ability to see trends or compliance issues across the Department.</p>	<p><b>GOALS AND KEY PERFORMANCE INDICATORS (KPIs)</b></p> <ul style="list-style-type: none"> <li>70% of staff utilize incident tracking database (good state).</li> <li>90% of staff utilize incident tracking database (great state).</li> </ul> <p><b>STATUS</b></p> <ul style="list-style-type: none"> <li>The development of an incident/complaint referral page is the last component of this project and is currently under development in consultation with programs.</li> <li>The project is expected to be closed out next quarter assuming the IT work goes as planned.</li> <li>A major improvement this quarter was a change in the database file structure which allows for the filing and storage of photos.</li> </ul>	<p><b>Tracking Database Usage</b></p>  <p>Present State – Good State – Great State</p>
<p><b>AIR QUALITY &amp; CLIMATE DIVISION FACILITY INFORMATION SHARING</b> <b>Event Date – October 2014</b></p> <p>Three sections of the Air Quality &amp; Climate Division (AQCD) manage facility data for 200+ facilities independently of one another, yet rely on each other’s information to perform their own duties. The consolidation of the various locales of facility information into one shared database will allow AQCD staff to collect and analyze data more efficiently, resulting in increased work product and public service. The Lean process has given the AQCD the time, resources, and a framework to complete such a large-scale consolidation.</p>	<p><b>GOALS AND KEY PERFORMANCE INDICATORS (KPIs)</b></p> <ul style="list-style-type: none"> <li>Decrease the number of data locations for permits, registration, and compliance data by 50%.</li> <li>Increase amount of cross-referencing of information by sections, and decrease amount of time taken to complete cross references.</li> <li>Increase number of permits available online by over 600%.</li> </ul> <p><b>STATUS</b></p> <ul style="list-style-type: none"> <li>Improvements were made to the Compliance database to facilitate a NEIEN ICIS-Air Grant project which is currently in testing.</li> <li>Live linkages between the existing Registration database and Air Facilities database were created to assist in shoring up facility names between the two. Work will begin on transitioning the Registration database quarter out of access in the next quarter and is expected to take some time given the complexities of the system.</li> <li>Corrections to registration facility names is currently being performed.</li> </ul>	<p><b>Information Locales Over Time</b></p>  <p>Number of Information Locales</p> <p>Year</p> <p>Information Locales</p> <p>Goal</p>

**RECEIPTS PROCESSING**

**Event Date – October 2014**

In 2014, we received over \$11 million in receipts. Receipts are handled inconsistently by several staff through mostly manual and paper processes, which on average were 21 days from receipt to deposit. We will reduce receivable processing time from 21 days to 3. We will accept different types of online payments and encourage vendors to submit their payments using alternate forms of electronic payments, including ACH/Wire payments.

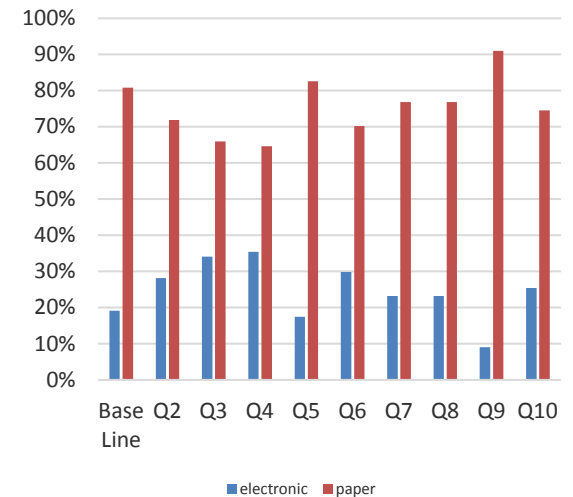
**GOALS AND KEY PERFORMANCE INDICATORS (KPIs)**

- Shift from receiving paper checks to electronic payments; electronic receipt pre-event baseline 15%, “good” state goal 50% and “great” state goal 95%.
- Develop standard operating procedures across the department by creating a department policy and individual division procedures. (Accomplished)
- Reduce time from receipt to deposit from 21 days to 3 days.
- Minimize data entry (duplication) from input of information.

**STATUS**

- The DWGW Essex Regional Office was randomly audited in October. They reported 7.4 days from date of receipt to date of deposit.
- The Stormwater Program was randomly audited in November. They reported 9.5 days from date of receipt to date of deposit.
- The Waste Management E-Cycles Program was randomly audited in December. They 3.8 days from date of receipt to date of deposit.
- Given some issues associated with ACH payments, and linking payment information directly to program databases, we are developing a *generic* form that will allow electronic payments through our ANROnline platform. This should help improve the # number of electronic payments received for programs who do not yet have electronic program and/or permitting forms and assist with collecting receivables more effectively.

**Percentage of Receipts Received Electronically vs. Paper**



Good State Goal – 50% electronic payment  
 Great State Goal – 95% electronic payment

<p><b>PUBLIC NOTICE</b> <b>Event Date – October 2014</b> We currently have public notice processes for 85 different permits. Nearly all have unique federal or state-required processes that result in inconsistent notice and comment periods for even permits that address the same project. This can cause an applicant and the public to be confused as to how to effectively participate in the process.</p> <p>The inconsistent requirements increase DEC costs and create administrative inefficiency: staff is required to provide multiple/different notice types; and may be required to attend multiple public informational meetings for a project.</p>	<p><b>GOALS AND KEY PERFORMANCE INDICATORS (KPIs)</b></p> <ul style="list-style-type: none"> <li>Reduce the number of different public notice processes from 85 to 5 (94%), requiring a new subchapter to V.S.A. Title 10.</li> <li>Consolidate the number of webpages for notices from 5 to 1. An improved Environmental Notice Bulletin (ENB) will be the one-stop web location for public notices, and will include a subscription service.</li> <li>Enroll 250 interested parties in the online subscription service within 6 months of launch.</li> </ul> <p><b>STATUS</b></p> <ul style="list-style-type: none"> <li>One (1) of the DEC’s thirteen (13) permit program databases has been integrated into the Environmental Notice Bulletin Version 2 (ENBV2) and is currently in the testing phase. The DEC Business Process Analyst position assigned to this project was vacated in late December 2016 and is actively under recruitment at this time. We continue to meet the goals and timelines for the project and hope to have the position refilled ASAP to keep this project on track.</li> </ul>	<p><b>ENB Major Project Milestones</b></p>																																
<p><b>CONSTRUCTION PROCUREMENT</b> <b>Event Date – March 2015</b> The scope of this project covers the roughly 2.5 years of construction procurement process: putting contracts out to bid, award, execution of the contracts which includes billing and paying, change orders, and site visits through the end of the 1-year warranty period when loan repayment begins. The process starts with “60% design review” where our Facilities Engineering Division (FED) Construction Section coordinates with Clean Water and Drinking Water staff to ensure that the design/specs are biddable and constructible and meets design standards.</p>	<p><b>GOALS AND KEY PERFORMANCE INDICATORS (KPIs)</b></p> <ul style="list-style-type: none"> <li>Efficiency measures reduce overtime by 15% by December 2015.</li> <li>DEC process time reduced by 15% by December 2016.</li> <li>10% increase of on-time projects by December 2016.</li> <li>10% increase of on-budget projects by December 2016.</li> </ul> <p><b>STATUS</b></p> <ul style="list-style-type: none"> <li>FED continued field testing the "first generation" of selected checklists which will be available on the new DEC/FED website and LGTS Database. Training to follow in Spring 2017 for Engineers/Clients.</li> <li>FED's Construction Chief is working on making "Engineers Joint Construction" documents workable for all size projects which will be much more effective and efficient for internal and external users.</li> <li>US Dept. of Labor conducting the wage survey with assistance of FED in 2017. This will allow FED to better manage the federal Davis Bacon Act requirements which consumes a great deal of staff time on projects.</li> </ul>	<p><b>Future State Projections</b></p> <table border="1"> <caption>Future State Projections Data (Estimated)</caption> <thead> <tr> <th>Year</th> <th>% Projects On Budget</th> <th>% Projects On Time</th> <th>Staff Overtime Hours</th> </tr> </thead> <tbody> <tr> <td>2014</td> <td>50%</td> <td>40%</td> <td>350</td> </tr> <tr> <td>2015</td> <td>55%</td> <td>45%</td> <td>300</td> </tr> <tr> <td>2016</td> <td>65%</td> <td>55%</td> <td>200</td> </tr> <tr> <td>2017</td> <td>75%</td> <td>65%</td> <td>100</td> </tr> <tr> <td>2018</td> <td>85%</td> <td>75%</td> <td>100</td> </tr> <tr> <td>2019</td> <td>90%</td> <td>85%</td> <td>100</td> </tr> <tr> <td>2020</td> <td>95%</td> <td>90%</td> <td>100</td> </tr> </tbody> </table>	Year	% Projects On Budget	% Projects On Time	Staff Overtime Hours	2014	50%	40%	350	2015	55%	45%	300	2016	65%	55%	200	2017	75%	65%	100	2018	85%	75%	100	2019	90%	85%	100	2020	95%	90%	100
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**IDENTIFICATION & PRIORITIZATION OF WATER POLLUTION RESTORATION PROJECTS**

**Event Date – March 2015**

Finding and funding priority surface water remediation projects is critical to sediment and nutrient pollution reduction efforts. This project reimagined approaches by which remediation projects are identified, prioritized, and funded by the Watershed Management Division (WSMD). The project capitalizes upon recent process improvements in the tactical planning and ecosystem restoration programs. The result is a significantly increased likelihood that the most important projects are identified and funded 100% of the time, with the greatest level of efficiency.

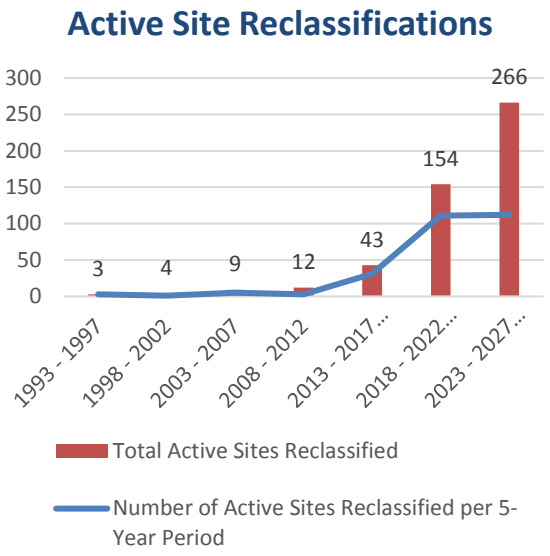
**GOALS AND KEY PERFORMANCE INDICATORS (KPIs)**

- Replace redundant business processes with one streamlined process. 50% (good) to 100% (great) of tactical basin plan pollution control projects follow new process by January 2016.
- 50% of incoming projects by June 2016, 75% of incoming projects by 2017, and 100% of incoming projects by 2019 provide pollution reduction estimates.
- Implementation tables for tactical basin plans are updated continuously. 50% of plans by April 2016 and 100% of plans by October 2016 updated.

**STATUS**

- The stage gate process has been implemented within a fully functional database. The database is now live internally, with read-only web browser access provided to external Regional Planning Commission stakeholders.
- The Basin 7 implementation table is now fully entered into the database and Basin 6 is largely also complete. Basins 2 and 4 have been initiated.
- Modeling is at nearly full capacity. Phase II sub allocations of TMDL requirements are complete, and actual final Plans containing these were issued on December 30, 2016 in compliance with TMDL.
- This Lean project and outcomes may be relevant to present to legislative committees and external parties of interest as one of the many DEC Lean successes.



<p><b>GROUNDWATER RECLASSIFICATION</b>  <b>Event Date – July 2015</b>                  This Lean event was conducted with the goal of improving the process to reclassify contaminated groundwater to class IV. The current reclassification process lacks clarity, takes too long to complete (12 sites in 20 years averaging roughly 15 months each) and often leads to improper submittal of information and materials. Roles and responsibilities of involved parties are not well defined, re-do loops are common, and the process lacks transparency. Finally, there is a concern that once a reclassification does occur, there is inconsistent portrayal, distribution and use of the mapped data.</p>	<p><b>GOALS AND KEY PERFORMANCE INDICATORS (KPIs)</b></p> <ul style="list-style-type: none"> <li>• Improve timeliness of reclassifications.</li> <li>• Increase transparency.</li> <li>• Complete 31 reclassifications by the end of 2018, bringing the total active site reclassifications since 1993 to 43 (up from 12).</li> </ul> <p><b>STATUS</b></p> <ul style="list-style-type: none"> <li>• We continue to be in a holding pattern for finalizing the checklists, fact sheets and standard letters until the Groundwater Rule revisions are accepted or denied. This is expected to happen by the end of the state fiscal year.</li> </ul>	<p><b>Active Site Reclassifications</b></p>  <table border="1"> <caption>Active Site Reclassifications Data</caption> <thead> <tr> <th>5-Year Period</th> <th>Total Active Sites Reclassified</th> <th>Number of Active Sites Reclassified per 5-Year Period</th> </tr> </thead> <tbody> <tr> <td>1993 - 1997</td> <td>3</td> <td>3</td> </tr> <tr> <td>1998 - 2002</td> <td>4</td> <td>4</td> </tr> <tr> <td>2003 - 2007</td> <td>9</td> <td>9</td> </tr> <tr> <td>2008 - 2012</td> <td>12</td> <td>12</td> </tr> <tr> <td>2013 - 2017...</td> <td>43</td> <td>43</td> </tr> <tr> <td>2018 - 2022...</td> <td>154</td> <td>154</td> </tr> <tr> <td>2023 - 2027...</td> <td>266</td> <td>266</td> </tr> </tbody> </table>	5-Year Period	Total Active Sites Reclassified	Number of Active Sites Reclassified per 5-Year Period	1993 - 1997	3	3	1998 - 2002	4	4	2003 - 2007	9	9	2008 - 2012	12	12	2013 - 2017...	43	43	2018 - 2022...	154	154	2023 - 2027...	266	266
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**Act 250 APPLICATION PROCESSING**

**Event Date – December 2015**

The Act 250 permit process is 45 years old, and happens across 9 districts throughout the state. The process and tools currently in use are dated and are applied inconsistently across the districts. Further, budgets are shrinking and staff are retiring, which means the same work will need to be done moving forward with fewer resources and less institutional knowledge. This project sought to standardize the Act 250 application process and identify efficiencies for the applicant and staff.

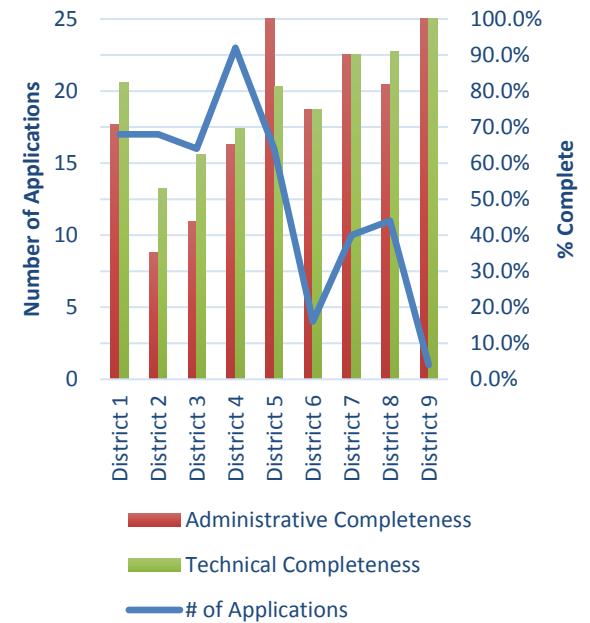
**GOALS AND KEY PERFORMANCE INDICATORS (KPIs)**

- Increase the percent of applications deemed administratively complete.
- Increase the number of applications deemed technically complete.
- For majors, increase the number of items on recess order.
- Decrease the number of days between date of receipt of last evidence to date of issuance of final decision.

**STATUS**

- Significant progress was made on both administrative and technical completeness standards. A final decision is expected to be made at the next Coordinator's meeting.
- Administrative staff completed work on the Skills Matrix. Working independently and with the group, a baseline was established. Review and analysis of the of data is the next step with a presentation to program of the findings at a future meeting.
- A schedule for application updates and history of changes exists and is posted on the website. Many updates occurred to the Act 250 Application Guidance document prior to NRB's Paperless initiative. Many new comments were received which are expected to be addressed and incorporated in the next version. This will be an ongoing process.

**Act 250 Application Completeness Tracked Over Three Months**



<p><b>ANR LAND ACQUISITION</b>  <b>Event Date – December 2015</b>          Acquisition of land by ANR for recreational and conservation purposes is guided by a 1999 Land Conservation Plan. In general, the acquisition process has many steps and can be cumbersome, is often both time-sensitive while taking a significant amount of time, lacks transparency, and requires significant legal and survey resources. An opportunity existed to streamline the process, reduce unnecessary redundancy, explore opportunities for resources sharing, and improve the timeliness of acquisitions.</p>	<p><b>GOALS AND KEY PERFORMANCE INDICATORS (KPIs)</b></p> <ul style="list-style-type: none"> <li>• % of process participants who rate their overall satisfaction as “good” or better based on survey.</li> </ul> <p><b>STATUS</b></p> <ul style="list-style-type: none"> <li>• The core project team met in early January 2017 to discuss status. At that time of this report, progress was made in discussions with ANR General Council to explore opportunities to enhance legal capacity for land acquisition. Additional discussions with pertinent legal staff are needed and will be scheduled soon.</li> <li>• The Agency Lands Acquisition Committee (ALAC) charter and guidance is complete and have been approved by the Secretary. The first meeting of ALAC is being scheduled.</li> <li>• Fish &amp; Wildlife has a draft land acquisition plan to share with ALAC and colleagues in FPR soon. Hopefully it can serve as template to guide acquisition decisions in the future. Progress has been made monitoring mitigation easements through seasonal staff.</li> </ul>	<p style="text-align: center;"><b>Major Tasks to be Completed</b></p> <hr/> <p>Build centralized database</p> <hr/> <p>Develop contract and legal capacity</p> <hr/> <p>Develop standards</p> <hr/> <p>Improve program capacity</p> <hr/> <p>Streamline internal review process</p> <hr/> <p>Remove programmatic barriers</p>
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**FINANCIAL MONITORING AND COMPLIANCE**

**Event Date – December 2015**

The Administration and Innovation Division's (AID) Financial Operations Section and the Facilities Engineering Division's (FED) Financial Management Section have responsibilities for the monitoring, compliance and auditing of state and federally funded grants, contracts, and loans. There are numerous requirements associated with these funding sources. The Department has been subject to audit findings over the course of the past few years, which has had financial consequences for the Department. This appeared to be a good opportunity to examine overlap in the two programs and develop systems to reduce or eliminate audit findings in the future.

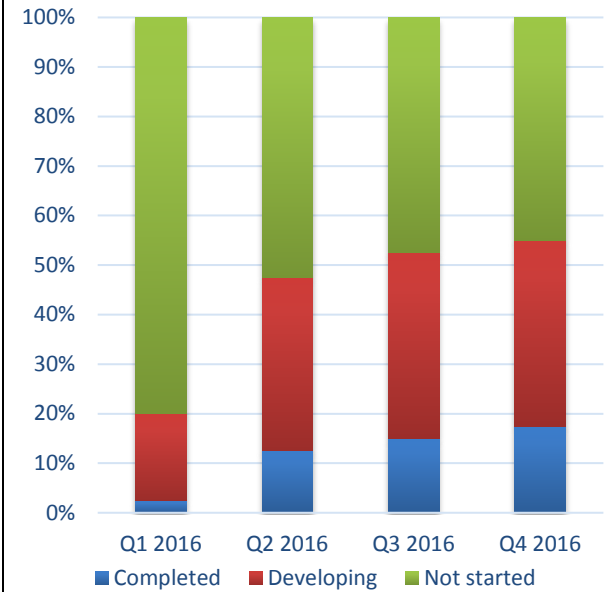
**GOALS AND KEY PERFORMANCE INDICATORS (KPIs)**

- Percentage of audits which result in corrective action plans.
- Percentage of entities receiving a high quality onsite monitoring visit every five years.
- Number of internal financial compliance checks per year for all outgoing grants, contracts, and loans.
- Percentage of Standard Operating Procedures (SOPs) completed (currently at 18% and starting from an unknown baseline).

**STATUS**

- The Standard Operating Procedures (SOP) team has been established and prioritized procedures that need documentation. The team is actively working on fifteen SOPs and has completed 18% of the prioritized SOPs. We plan to restart efforts with the new FED staff in mid-February.
- Working with FED, the team has made significant progress in working through the FFATA reporting process required under federal grants. We have not yet completed the SOP, as we still have some steps that need to be worked out, but FED has made some major steps to make this process more transparent and standardized.
- In addition, the team has worked together to incorporate risk assessment requirements, as directed by Bulletin 5, into the SRF loan process. Again, looking to have consistency.

**Standard Operating Procedures Completed (40 total SOPs planned)**



**PERMIT PERFORMANCE STANDARDS**

**Event Date – July 2016**

In 1987, the Legislature mandated that the Agency of Natural Resources establish time limits for the processing of permits as well as procedures and time periods within which to notify applicants whether an application is complete. Annually, ANR (specifically DEC) is required to submit a report to the legislature assessing its performance in meeting the time limits. Given that these time limits have not been updated since 2005, the procedure for calculating them is from 1996, and the knowledge and use of the time limits and procedure is inconsistent across the Department, now seemed like a good time to look at the process to find ways to improve it.

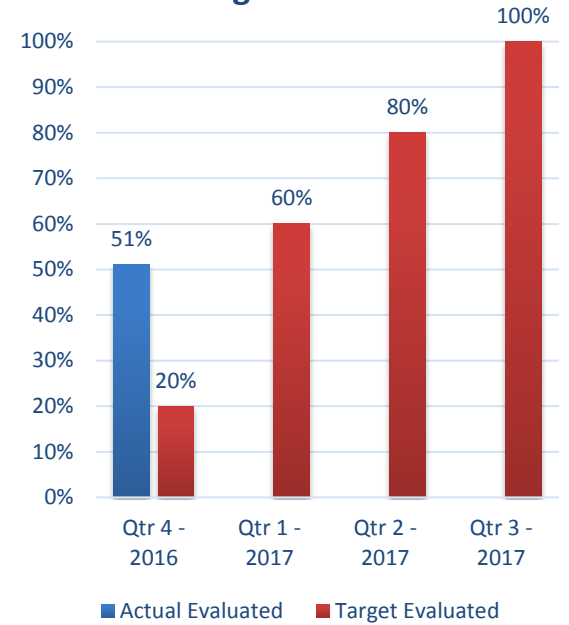
**GOALS AND KEY PERFORMANCE INDICATORS (KPIs)**

- % of programs evaluated on how they implement the permit application review procedure and track process performance
- % of programs actively using performance data to manage permit processes

**STATUS**

- Initial evaluations have been completed for most permitting programs within the Air, Waste, Drinking Water and Groundwater Divisions. The Watershed Management Division is next to discuss program data and use of PEP.
- The 1996 Permit Application Review Procedure (PARP) has been reviewed and is being updated. Final revision will be made in conjunction with the roll out of the Environmental Notice Bulletin Version 2.
- A crosswalk linking the myriad of VSA Title 3 fee references to project numbers is almost complete.
- A follow-up Lean event which will look at permit performance dashboards is in the development stages.

**% of Programs Evaluated**



## Project Closeout Report

**Project Title:** Grants and Contracts

**Background:** The Grants and Contract project focused on developing an efficient and effective processing of grants and contracts while maintaining compliance with State and Federal regulations. Previously, it had been a challenge to process these documents in a timely manner due to the complexity of the individual requirements and signoffs needed. DEC previously had over 60 staff managing approximately 225 active grants and contracts at any given time. The inefficient process strained the capacity of both our fiscal staff and our technical staff who could be doing higher priority work.

**Key Changes:** The major change to the process through the Lean event was to centralize the function of grant and contract management. Previously, the DEC business office was tasked with training the 60 plus staff who were managing the department’s grants and contracts about any changes in the process or requirements. This was not done consistently and was challenging to keep everyone up-to-date. By centralizing the function, only 3-4 financial staff (grants management specialists) would be required to perform and maintain an expert level of knowledge on the process essentially administering an agreement from A to Z requiring less time and involvement of the 60 plus technical and program staff. This key change allowed the staff project managers to apply their time and skills strictly in the technical aspects of the grants/contracts, while the grants management specialists serve as the skilled experts in the complete administration of the agreements receiving routine training on all federal and state compliance requirements which makes the process far more efficient and effective for the DEC.

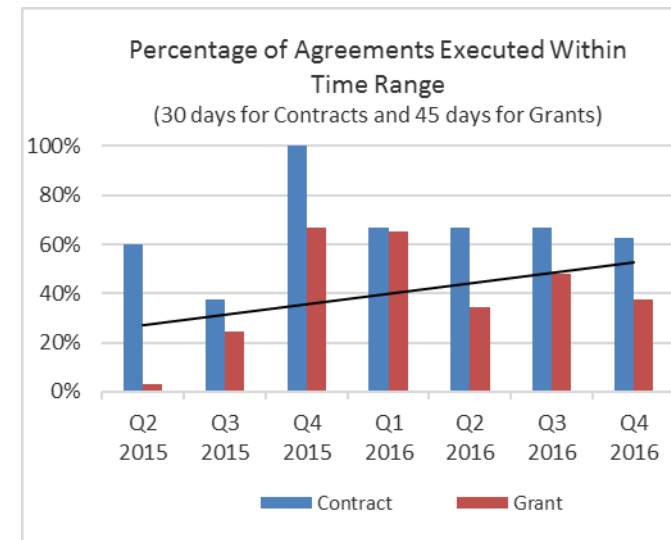
Additionally, a document management system was developed (GCMS) to provide a centralized system of electronic file storage for all grants and contracts. This system was then expanded to allow for process tracking to standardize the development of grants and contracts among the grant management specialists. Finally, the grants management specialists staff took over the processing of all grant and contract related invoices which provided for complete administration and accountability over the full life cycle of the grants and contracts process. The results of this event have received accolades from both internal staff and external stakeholders.

### Key Performance Indicators:

- Executed Agreement date within 30 days of vendor notification of award for contracts and 45 days for grants.
- Average number of days from invoice date to date of payment is less than 30 days.

**Results:** The process for developing grants and contracts has been standardized across the entire department. We now have dedicated staff to assist in the process and track the time it takes to develop all our agreements. Since there was no standard tracking of time prior to the Lean event, we have a limited ability to compare our current data. However, we have made significant steps towards decreasing the time it takes to develop grant and contracts, as well as decreased the time to pay our external partners for their projects and services. We currently average less than 30 days to pay invoices and less than 60 days for issuing a grant or contract.

**Next Steps:** The Grants and Contracts team is still working to review our data to achieve our KPI targets and will make renewed efforts to either achieve the targets or revise them, if they are deemed unrealistic. We were recently able to hire a new Grants Management Specialist position and anticipate that with additional staff, the KPI targets will be achievable. We also plan to continue to make improvements to our database to improve the functionality and usability of the system as we roll it out to technical grant managers.



**Other Notable Projects Started/Supported this Quarter**

- Department of Human Resources - Limited Service Extensions
- Department of Forests, Parks, and Recreation – Seasonal Temporary Hiring
- Judiciary – Child Abuse and Neglect Cases
- Stream Alteration Permitting
- Wastewater Treatment Facility Inspections

**Previously Completed Projects**

- AmeriCorps
- Licensing and Certification
- Public Water System Source Permitting Process
- Stormwater General Permit 3-9015 Processing
- VTrans/ANR Title 19 Consultation
- Wetlands