



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 December 2016.
- Return unspent funds to the State Revolving Fund (SRF).

STATUS

KPI Total as of September 2016	
Funds Returned	\$3,139,497
Accounts Closed	930

• This project has been on hold due to staff vacancies, which include the two audit positions responsible for the closeouts. This effort will pick back up following refill of at least one of the audit positions, which is projected to be filled by November 2016. There are currently 167 older accounts remaining to be closed.

% Open Accounts Jan 2014 - September 2016



Goal - decrease open accounts to 0% by December 2016

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

- This quarter we finalized online claim form design, moved the forms to our public ANR Online Services Portal, and integrated the forms to our internal database so online data submissions would auto populate our database. Additional testing and fixes were made.
- At the beginning of September, we held a training session
 with three Vermont consulting firms who agreed to assist
 with external testing. After making some final adjustments,
 we began accepting online claims from these consultants.
 We anticipate continuing external testing through at least
 December. During this time, we plan to identify and make
 additional improvements, as well as develop training videos
 for our broader stakeholder community.
- In early 2017 we look forward to a broader launch of our ANR Online forms.

% Invoices Paid w/in 30 Days of Receipt







GRANTS AND CONTRACTS

Event Date - May 2014

Efficient and effective processing of grants and contracts has been a challenge, given the individual requirements, types and signoffs needed. DEC previously had over 60 staff managing approximately 225 active grants and contracts at any given time. The former process involved 67 steps and required 72 hours of hands-on time, 394 days of desk time per grant/contact. The inefficient process strained the capacity of both our fiscal staff and our technical staff who could be doing higher priority work.

Our new process has reduced the number of staff managing the administrative work of an agreement down to 5 and reduced the steps down to 38 steps.

GOALS AND KEY PERFORMANCE INDICATORS (KPIs)

- Average number of days from invoice date to date of payment is less than 30 days (currently 27).
- Executed contracts/grants within 30/45 days of vendor award notification (currently 36-day average for contracts and 58 for grants). Note that this average is only including data from our new tracking system and doesn't include historic data.

- The average number of days from invoice date to date of payment has been consistently below our 30-day target.
- Improvements to the Document Management System (GCMS) have been completed and final bugs are being worked out. The enhancements have allowed for us to change our method of tracking KPIs from manual tracking to database driven. Over the next quarter we will complete the rollout of the GCMS to project managers.
- KPIs for the grants and contracts completion have increased this quarter. We are moving closer to our goal of contracts and grants being completed within 30 and 45 days respectively. Compared with quarter 3 in 2015, we had 49% of all grants and contracts on time compared to 27%. However, during this time the volume of agreements increased by 80%, so the process is allowing us to complete more agreements on time, while handling an increase in volume.
- In order to help us address the increasing volume of grants and contracts processed by our office, we are currently hiring a new Grants Management Specialist to meet our great state goal of 3-4 grant management specialists.
- Through the help of our summer intern, we now have a
 website for grantees providing information about applying
 for and receiving funding from the Department.







DEC INCIDENT TRACKING Event Date – July 2014

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.

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.

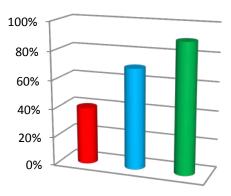
GOALS AND KEY PERFORMANCE INDICATORS (KPIs)

- 70% of staff utilize incident tracking database (good state).
- 90% of staff utilize incident tracking database (great state).

STATUS

- The development of a referral page is the last component of this project and is currently under development.
- Project is expected to be closed out next quarter assuming the IT work goes as planned.
- Looking at tracking additional KPIs related to response rates.

Tracking Database Usage



Present State - Good State - Great State

AIR QUALITY & CLIMATE DIVISION FACILITY INFORMATION SHARING Event Date – October 2014

Three sections of the Air Quality & 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.

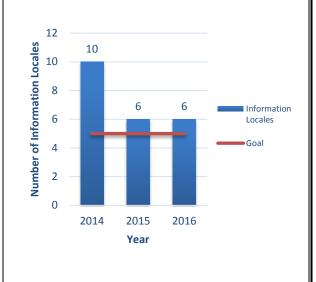
GOALS AND KEY PERFORMANCE INDICATORS (KPIs)

- Decrease the number of data locations for permits, registration and compliance data by 50%.
- Increase amount of cross-referencing of information by sections, and decrease amount of time taken to complete cross references.
- Increase number of permits available online by over 600%.

STATUS

- Navigational mechanism altered to have rows of tabs that are color coded to indicate what is selected.
- Google Maps added to facility update page for capturing facility latitude and longitude.
- Permitting component of database completed. Tested by AQCD staff and now live.
- Compliance component of database completed (with exception of BTI NEIEN ICIS-Air grant project portion)
- Public facing Permit section of the database completed (allows public internet access to all AQCD permits).
- Additional MS-Access forms related to the Registration component being reviewed.

Information Locales Over Time







RECEIPTS PROCESSING

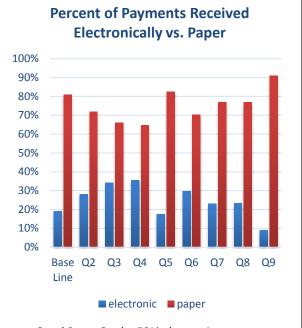
Event Date - October 2014

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.

- We continue to work with programs to encourage entities to pay via ACH by including a brochure in with our billings for those programs that we send bills out.
- The random audit for July was the Waste Management Division UST program. There were 8.2 days between date of the check and deposit, and 3 days from date of receipt to date of deposit.
- The random audit for August was the Watershed Division Wastewater section. There were 7.3 days between date of the check and deposit, and 3 days from date of receipt to date of deposit.
- The random audit for September was FED Division. There
 were 18 days between date of the check and deposit, and 5.5
 days from date of receipt to date of deposit. One check was
 submitted nearly a month after it was dated which is why the
 average of 18 days is so high



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





PUBLIC NOTICE

Event Date - October 2014

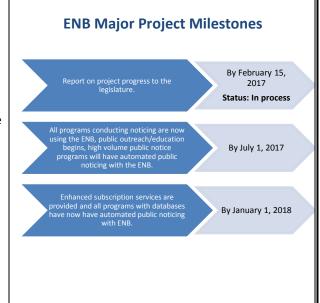
We currently have public notice processes for 85 different permits. Nearly all have unique federal or state-required processes that result in inconsistent notice and comment periods for even permits that address the same project. This can cause an applicant and the public to be confused as to how to effectively participate in the process.

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.

GOALS AND KEY PERFORMANCE INDICATORS (KPIs)

- Reduce the number of different public notice processes from 85 to 5 (94%), requiring a new subchapter to V.S.A. Title 10.
- 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.
- Enroll 250 interested parties in the online subscription service within 6 months of launch.

- S.123 passed and was signed into Act 150.
- The Environmental Notice Bulletin Version 2 (ENBV2)
 Workgroup has made great progress designing the public
 portal. The scope has been defined and most of the design
 work has been completed. We met with stakeholders and
 received positive feedback on the current design. Additional
 training and the design was also presented to Department
 supervisors and managers.







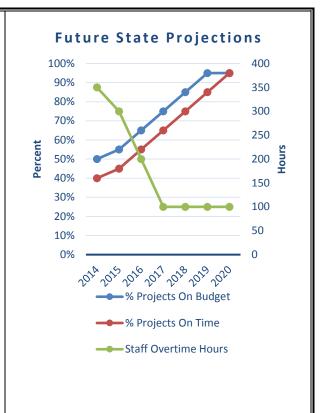
CONSTRUCTION PROCUREMENT Event Date – March 2015

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 Construction Section coordinates with Clean Water and Drinking Water staff to ensure that the design/specs are biddable and constructible and meets design standards.

GOALS AND KEY PERFORMANCE INDICATORS (KPIs)

- Efficiency measures reduce overtime by 15% by December 2015.
- DEC process time reduced by 15% by December 2016.
- 10% increase of on-time projects by December 2016.
- 10% increase of on-budget projects by December 2016.

- Continuing field testing 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 Engineer/Clients.
- A meeting was held with USDA Rural Development, FED representatives, and a number of engineering consultants to discuss the use of Engineers Joint Construction Documents Committee (EJCDC) contract documents to streamline discrepancies between both funding programs. FED was using the Town of Hartford Project to pilot test the new set of EJCDC documents with supplementary requirements. The engineer declined to use EJCDC because of time constraints with Project Owner. Still looking to get interest to pilot the EJCDC documents. FED will accept this transitional year both set of documents (current FED set and EJCDC) with the goal of having only one set of front end document (EJCDC) in 2017. FED Construction Section Chief is working on the modification to make EJCDC workable for all size projects.
- US DOL is planning on conducting the wage survey with assistance of FED in Fall of 2016.
- Construction procurements implementation project has been severely affected by several retirements (not only in FED but in DWGWPD), new FED staffing limitations and mentoring while several position that are still not yet filled. A meeting scheduled for October 27 to address some of these hurdles.







IDENTIFICATION & PRIORITIZATION OF WATER POLLUTION RESTORATION PROJECTS

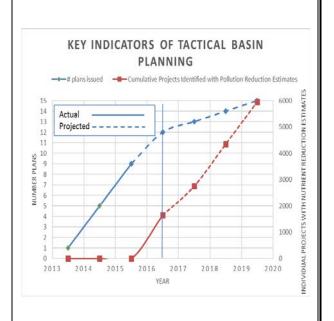
Event Date - March 2015

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.

- Stage Gates implemented within fully functional database.
 Database now live internally, with read only web browser access provided to Regional Planning Commission stakeholders. Basin 7 implementation table now fully entered, and Basin 6 largely also complete.
- Modeling capacity at nearly full capacity. Phase II suballocations of TMDL requirements are complete, and actual final drafts staged for public release 10/15.







GROUNDWATER RECLASSIFICATION Event Date – July 2015

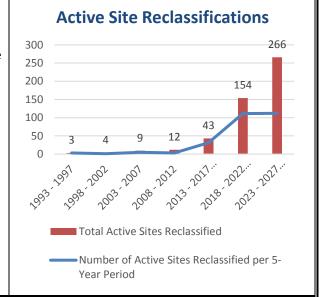
This Lean event was conducted with the goal of improving the process to reclassify contaminated groundwater to class IV. The current reclassification process lacks clarity, takes too long to complete (12 sites in 20 years averaging roughly 15 months each) and often leads to improper submittal of information 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.

GOALS AND KEY PERFORMANCE INDICATORS (KPIs)

- Improve timeliness of reclassifications.
- Increase transparency.
- Complete 31 reclassifications by the end of 2017, bringing the total active site reclassifications since 1993 to 43 (up from 12).

STATUS

 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 year.



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.

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STATUS

- Ongoing weekly meetings occur with ACCD to finalize requirements gathering to further plans for consolidation of database and electronic forms.
- Started Skills Matrix with Administrative staff.
- Paperless will go live this September. One part-time employee is spending 95% of time toward roll-out.
- Work started on updates for Application Guidance Documents.
- KPI's are in development.

Major Tasks to be Completed

Consolidate databases and entry points

Improve front-end educational materials and give applicants the the tools to navigate the process more effectively

Develop standard operating procedures

Coordinate with Permit Specialists to develop project review sheets which include expanded jurisdictional determinations and a wider distribution





ANR LAND ACQUSITION

Event Date - December 2015

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 timesensitive 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.

GOALS AND KEY PERFORMANCE INDICATORS (KPIs)

• % of process participants who rate their overall satisfaction as "good" or better based on survey.

STATUS

- Substantial progress has been made regarding changes to the Agency's land acquisition review process. A proposed charter for a new ANR Land Acquisition Committee and a new ANR "Procedures" document for review of ANR acquisition proposals have been developed and presented to the Leadership Team. These documents are undergoing review by district stewardship teams before final presentation to Leadership Team for approval.
- Progress on other implementation tasks has stalled somewhat due to a very busy acquisition schedule over the summer months and the vacant Lands Administration and Records Coordinator position.

Major Tasks to be Completed

Build centralized database

Develop contract and legal capacity

Develop standards

Improve program capacity

Streamline internal review process





FINANCIAL MONITORING AND COMPLIANCE

Event Date - December 2015

The Administration and Innovation Division's Financial Operations group and the Facilities Engineering Division's 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 a number of 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 15%)

- The past quarter has slowed greatly due to the loss of staff in the Facilities Engineering Division (FED) and the close of the fiscal year, which requires time from the Financial Operations Team.
- The Standard Operating Procedures team has been established and has prioritized procedures that need documentation. The team is currently working on nine active SOPs and has completed one in the last quarter. We have completed 15% of the prioritized SOPs and hope to reach 50% by the close of quarter 4.
- The spending authority for the federal share of the State Revolving Fund (SRF) Loans has been incorporated into the budget for SFY'17. This will eliminate administrative tasks by both DEC Financial Operations staff as well as Finance and Management staff beginning in fiscal year 2017.
- The team has worked together to incorporate risk assessment requirements, as directed by Bulletin 5, into the SRF loan process.







Permit Performance Standards Event Date – July 2016

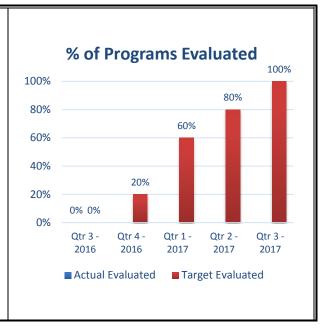
In 1987, the Legislature mandated that the Agency of Natural Resources establish time limits for the processing of permits as well as procedures and time periods within which to notify applicants whether an application is complete. Annually, ANR (specifically DEC) is required to submit a report to the legislature assessing its performance in meeting the aforementioned 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 take a 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

- Work is underway to update the 1996 Permit Application Review Procedure.
- A core team outlined guidance for DEC programs to analyze their current process for processing permits. The goal is to evaluate current process, tools programs use to track PEP and if current standards are still relevant.
- Project champion, project sponsor and facilitator have refined the key performance indicators.



Other Notable Projects Conducted This Quarter

- Workload Analysis with Admin Staff from the Drinking Water and Groundwater Protection Division
- Review of Child Abuse and Neglect Cases with the Vermont Judiciary (DEC playing a support role)
- Contracting Process with the Department of Forest, Parks, and Recreation (DEC playing a support role)

Previously Completed Projects

- Stormwater General Permit 3-9015 Processing
- Public Water System Source Permitting Process
- VTrans/ANR Title 19 Consultation





Project Closeout Report

Project Title: DEC Licensing and Certification

Background: This event sought to look at DEC's various licensing and certification programs and evaluate their administrative programs for processing licenses, proctoring exams and conducting continuing education workshops. The Lean event was first conceived to standardize program development, share database development resources, and create a public portal for professionals and the public to access. During the event, the question as to when should DEC administer a license versus the Secretary of State's Office of Professional Regulation (OPR) came to the forefront. OPR licenses over 47 different professions and has a well-developed complaint system. Additional considerations included a review of revenues versus expenses (salaries and actual) and current IT vs. needed resources.

Key Changes:

- Decided to transfer two licensing programs to OPR; Wastewater System and Potable Water Supply Designers and Wastewater Treatment Facility Operators
- Developed draft language for a DEC policy for evaluating current and proposed licensing and certification programs for deciding if OPR or DEC should administer the license
- Developed a framework for future database and dashboard development
- Proposing to develop a new licensing program for Wastewater System Installers with OPR administering the license
- Evaluating other programs (Well Drillers and Public Water System Operators) for consideration of transferring to OPR

Key Performance Indicators: The key indicators for this project included the number of programs being evaluated for transfer, and the number of programs needing IT and electronic solutions. Two out of the six DEC programs will be transferred immediately, and two others are being evaluated. Others were either more geared to education or were different types of licenses. All current programs have databases, but future ones may require a new database. A mock-up layout of that database has been developed. DEC and OPR are working together to create a way to share and display data for permitting use and as a public dashboard.

Results: Transferring the Designers and WWTF Operators will free up administrative time for value-added activities. For the designer program, this will allow staff time to administer a new installer program. For the WWTF operators, staff will be shifted to support other Watershed Management Division permitting programs. Both programs were currently losing revenue when counting administrative salaries. Fees will be collected for designer exams and DEC-sponsored training events.

Next Steps:

- Implementing program policies related to new program development including the following considerations:
 - Should DEC or OPR administer a license or certification?
 - o What is the budget, time and expenses, and how will fees cover expenses?
 - o What are the IT database, electronic submittals and dashboard needs?
- Working with OPR to draft legislation on licensing wastewater installers





Project Closeout Report

Project Title: Wetlands Project Management

Background: Wetlands staff did not have effective or efficient tools for general project management and standard tasks, eating away at time for important wetland protection work. Innovative technology and standardized methods were needed to streamline tasks and to organize project data, allowing a shift in staff time to higher value wetland protection efforts such as outreach and technical assistance.

Key Changes:

- Creation of a functioning database with field entry capabilities
- Creation of form letters to provide prompt responses to landowners
- Creation of new permit application forms
- Creation of standard operating procedures around permit review

Key Performance Indicators:

- 100% documentation of permit files and site visits
- Increase in staff time spent on proactive site visits (Good state 50%, Great state 80%)
- Increase in staff time spent on proactive protection (Good state >25% Great State >50%)

Results:

- The Wetlands Program has a new database where data can be entered in the field and standard form letters can be created with the push of a button. Documentation of projects increased by 150%.
- In the past year, approximately 60% of staff time on site visits have been proactive, exceeding our goal of 50%.
- In the past year, approximately 23% of staff time has been spent on proactive protection tasks. This number is projected to increase this year since all Lean tasks have been completed.

Next Steps:

- The Program will undergo a skills matrix exercise in order to determine strengths and needs of individual staff for the collective success of the program.
- A possible "mini-Lean" to review the Class I designation process.





Project Closeout Report

Project Title: ECO AmeriCorps Program Start-up

Background: In June, 2015, the Vermont Department of Environmental Conservation (DEC) received funding to implement a statewide AmeriCorps program. The program aimed to place 20 full time AmeriCorps members in water quality focused positions with a variety of non-profit and governmental entities through the state. DEC serves as the program coordinator and provides administrative, operational and technical support to members and community sponsors.

Because this was an entirely new program for DEC, there was an opportunity to build it from the ground up using Lean principles and tools. This approach enabled DEC to develop a high performing program with logical and efficient processes ranging from recruitment of members and community host sites, financial operations such as billing and grant reporting, member training, programmatic reporting to federal grantors, and regular member support through their service term.

Key Changes:

- Established roles and responsibilities of key staff involved in the program resulting in most efficient use of staff time
- Changed original program concept from 15 full time members and 10-part time members to 20 full time members. This eased the administrative burdens of the program
- Established an aggressive member recruitment schedule for 2015-2016
- Developed an annual calendar and got the program up and running in a short time frame

Key Performance Indicators:

Member Enrollment Rates: 100% for 2015; 100% for 2016

Host Site Enrollment Rates: 100% for 2015; 100% for 2016

• Host Site Re-Enrollment Rates: 65% for 2016

Member Retention rates: 90% for 2015

Results:

- Increased amount of grant award to grow program in the second year; capacity of program from 20 full time members in 2015 to 24 full time members in 2016 without increasing program support staff.
- 8 of the 18 member completing service during 2015-2016 service year applied to the ECO AmeriCorps program for a second year (44%)
- 13 out of 20 original community host sites, applied to host a member for the 2016-2017 service year (65%).
- Received praise from SerVermont (statewide oversight commission) on an excellent first year. Staff believed that other AmeriCorps program operating in the state and new programs forming could utilize the Lean principals applied to this program.

Next Steps:

• Continue to apply Lean tools to the program, consider expanding program when the initial 3-year grant cycle is complete.

Collective Member Accomplishments

1,546 citizens were provided training on water quality best management practices with 85 of these citizens reporting an intention to change their behavior to adopt stewardship practices learned

417 acres of public land were improved

985 volunteers recruited and managed by ECO AmeriCorps members

4,130 volunteer hours were dedicated to water quality improvement

6.06 miles of river were improved

29,147 hours of direct service by ECO AmeriCorps Members