Lean

Continuous Process Improvement

RESOURCE MANAGEMENT AGENCY

LEAN DEPLOYMENT
AND
IMPLEMENTATION PLAN

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EXECUTIVE SUMMARY

This Lean implementation plan builds on existing efforts and represents a major step forward by aligning the entire Agency to a culture of continuous process improvement with a standardized, disciplined approach that will achieve effective and efficient results.

Lean training and events will occur at a measured, organic pace by personnel at many levels, with contractor support where needed, to reduce lead times, reduce variation, and eliminate bottlenecks. At the same time, the internal infrastructure will be developed over the next several months to sustain the Lean improvement efforts while decreasing reliance on an outside contractor, with the eventual goal of self-sustenance.

This "Lean Deployment and Implementation Plan" is a living document that outlines and addresses essential elements to a successful Lean implementation within RMA. Key elements include organizational structure, deployment methodology, education/training, metrics, and "Organizational Assessments".

Initial work involves "*Executive Planning Sessions*", the development of a Vision, Strategic Plan, and "*Value Stream Analysis*" with the Agency Head and Division Directors to select the right "*Projects*" to engage. As "*Projects*" are identified, performed, and completed, programs and services will benefit from the improvements, savings, and return on investment.

BACKGROUND AND INTRODUCTION

WHAT IS LEAN SIX SIGMA?

"Lean Six Sigma" is a structured process improvement model used widely in various industries and government sectors to engage the workforce in transforming their organizations to operate with a focus on process efficiency and service excellence.

Its basic premise is to eliminate waste and to reduce variation. Tools are designed around the scientific model: "*Define", "Measure", "Analyze", "Improve", and "Control" ("DMAIC")*. Traditionally accepted outcomes yield a 40% improvement in processes and a 3:1 return on investment.

Its basic framework consists of two groups of staff. The first group are consultant staff (called "*Green Belts"* or *"Black Belts"*) who are trained to use a myriad of tools designed to facilitate the Process Improvement effort and to analyze data. The second group are program staff who are those subject matter experts involved with any given process. After an orientation to Lean Six Sigma, both groups partner in structured events where the "belts" utilize selected tools to assist the program staff to meet their process improvement goals.

HOW DOES THIS FIT IN WITH THE COUNTY?

With the recent change of CEO leadership in Ventura County, the Board of Supervisors set three priorities. They are, 1) Government Transparency, 2) Fiscal Conservatism, and 3) 21st Century Business Practices. One strategy that the County has utilized to meet Priority Three has been to launch Lean Six Sigma as the model for a county-wide process improvement initiative.

The County's Process Improvement initiative has resulted in the development of the Service Excellence Office, headed by Assistant County Executive Officer Matt Carroll, and the establishment of the Service Excellence Council (comprised of Agency Heads) and the Practitioner's Council (comprised of trained belts). The County has also contracted with a Master *"Black Belt"* who is providing County-wide Lean Six Sigma training.

WHAT WILL RMA BE DOING?

At the Resource Management Agency, Lean Six Sigma is already taking root. The Operations Division has several staff trained as *"Green Belts and Yellow Belts"*, and initial events have already yielded measureable results. The Planning Division, along with Environmental Health, Public Works, Agriculture, APCD, Fire, the CEO's office, and a "*Master Black Belt"* began work in mid-2008 to examine and improve the Discretionary Land Use Permitting Process. Together, this group created a master plan called the *"Get to Excellence Plan"*, which consists of various activities designed to lead to an improved Discretionary Permit process.

To complement the efforts that have already taken place, this Deployment and Implementation Plan describes an Agency-wide approach to implementing "*Lean Six Sigma".*

IMPLEMENTATION APPROACH

RMA's Lean Deployment and Implementation Plan will be guided by the following expectations:

1. Standardizing the management of all Lean efforts through "*Executive Planning Sessions" (EPSs)* and "*Value Stream Analyses" (VSAs)* so that *"Lean targets"* are selected because they are part of a high-level value stream that can provide significant return on investment.

   EPSs will be conducted with the Agency Head, Division Directors, and in some cases, Managers. VSAs will be performed on the *"Value Streams"* selected during the EPSs. Both the EPS and the VSA should be facilitated by a professional or contractor.

2. Coordinating with County staff (analysts) and other customers, as applicable, for the selection of and participation in *"Lean Events"* and *"Projects"*, and identification and utilization of savings is recommended.

3. Maximizing the number of Lean events, "*Get to Excellence Plans"* (GTEP), Six Sigma *"Projects", "Kaizens", and "Just-Do-Its"* across the Agency creates the outcomes resulting in actual savings.

4. RMA's *"Organizational Assessments"* (explained later) will determine the maturity level of Lean efforts and their alignment with this Plan. The RMA Lean Implementation Plan will be updated using the results of these assessments.

5. Using an implementation/deployment plan serves to align Lean principles and processes across the agency. This includes defining the RMA Lean Implementation process complete with training qualifications, standardization of terminology and Lean Six-Sigma processes, and standardizing deployment and execution metrics for Lean efforts so that everyone in the agency can see the achieved results.

6. Fully employing the elements of *"Information and Knowledge Management"* will reduce the costs to implement Lean. The focus of this effort will be to replicate results of *"Lean Events"*, assist in locating expertise, and continually improve the application of Lean processes by maintaining information in a shared location (such as the Ventura County Teaming Site).

While Lean efforts are underway to varying degrees in RMA, this plan has been developed to provide maximum coverage and impact to RMA.

The implementation package consists of the following (professionally) guided activities:

- Executive Planning Session
- Value Stream Analysis
- VSA Transformation Activities
- Organizational Assessments

RMA will utilize a systematic approach to (1) analyze the agency for opportunities, (2) align improvement activities with the agency's Mission and Vision, and (3) transform all *"Value Streams"*.

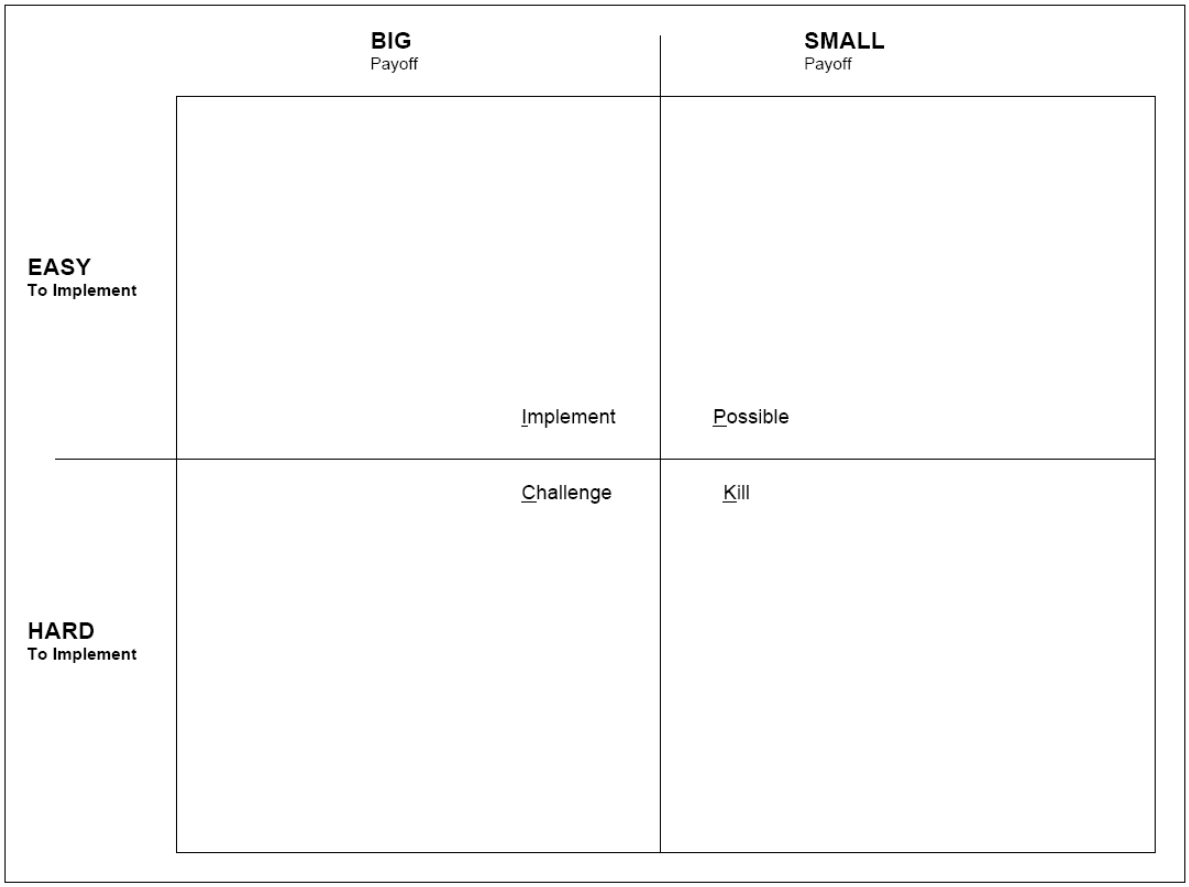
EXECUTIVE PLANNING SESSION - ANALYZING THE AGENCY FOR OPPORTUNITIES

During the Executive Planning Session, success is defined in the eyes of the *"Executive Leadership"*, and the level of commitment and resources required to achieve a successful Lean implementation effort are identified.

These sessions can be up to two-days in length and are conducted with "*"Executive Leadership""* and *"Lean Deployment Team"* members ("*Deployment Champion"* and *Belts*) with a consultant to establish strategic direction including alignment with the County, assess change readiness, and select value stream(s) for initial engagement. Prior to the EPS, all participants will have been trained on Lean Six Sigma fundamentals, including a hands-on simulation at the CEO sponsored "*Lean Champion Training*" sessions.

Few organizations have only one value stream, and the RMA is no exception. There are far too many value streams within RMA to begin to list them here. Therefore, a methodology must be identified to evaluate which of these value streams has the greatest potential savings and benefit to the Agency and its efforts to achieve its mission, vision and objectives. RMA selected the *"PICK Chart"* as its methodology for evaluating its *"Value Streams"* targeted during the EPS. (A "*PICK Chart*" is illustrated on the following page.) This relatively simplified methodology was used by the Executive Leadership to classify value streams as being either "possible", "immediately implementable", "challenging", or "killed" (i.e. not evaluated at all). The "*PICK Chart*" process quickly built consensus among the Leadership team regarding the appropriate focus of Lean efforts and designation of *"Value Streams"*. A table summarizing the RMA Value Streams identified through the EPS for analysis and improvement in 2009 is included in the *Implementation Plan* section at the end of this plan.

PICK Chart



VALUE STREAM ANALYSIS

After the target "*Value Stream(s)"* is selected, the next step is the completion of a *"Value Stream Analysis" (VSA).* During this 2-5 day session, a team comprised of RMA organization/site leadership, stakeholders, and their "*Lean Belts"* or Consultant is chartered to evaluate the VSA. The team is provided training and will create and analyze the current state value stream map for sources of waste, document the *"Baseline conditions"*, and identify improvement metrics. Depending on the focus of the VSA, it may be appropriate to include other organizations such as suppliers, external customers and contracted support service providers as participants.

The most important deliverables of the VSA session are the *"Future State Map"* and the *"Get-to-Excellence Plan (GTEP)"*, which aligns the *"Value Streams"* with the business strategy. The GTEP is a time-phased collection of *"Kaizens"* (less than 30 days to complete), *"Projects"* (30 days or greater to complete), and *"Just-Do-Its"* to systematically transform the "*Value Stream"*. It becomes a "living document" to be updated or revised as tools are applied, lessons learned, and subsequent VSA passes are performed.

VALUE STREAM TRANSFORMATION

As previously discussed, improvement opportunities identified during *"Value Stream Analysis"* are segregated into one of three improvement process methodologies for implementation – *"Kaizens", "Projects", and "Just-Do-Its".* Teams are formed and charters prepared to implement the GTEP, as appropriate.

Kaizens are appropriate in situations where waste in the value stream is obvious and the presence of Lean principles such as flow and pull are conspicuously absent. *"Kaizens"* are action oriented, typically 2-5 days in length. The *"Kaizens"* are drawn from GTEP developed during *"Value Stream Analysis*". The teams are cross-functional and usually consist of 6-8 people each. A structured 7 week improvement cycle is employed to prepare for, execute, and follow-up on the "*Kaizen"*.

Preparation for the "*Kaizen"* begins three weeks in advance utilizing a detailed checklist that can be customized to each event. Based on the topic, specific Lean/Six Sigma tools to be applied are identified, improvement metrics are defined, and improvement targets established. "*Team leaders", and" team members"* are identified and calendars are adjusted to ensure full participation in the event.

Data collection of pertinent information begins two weeks in advance and will be used to drive change throughout the event. One week before the event, affected employees are notified of the activity, participants are trained, logistical support is arranged, data collection is completed, and the "*Kaizen Newspaper"* is started.

Regardless of the topic, the format of the "*Kaizen"* is typically the same. While a "*Kaizen"* can be completed in less than five days, the following describes the events of a five day "*Kaizen"*. On Day 1, current conditions are documented and waste/ opportunities are identified. Day 2 consists of making big changes happen; it is often a very long day. Day 3 is debugging and additional improvement. Day 4 is documenting/ standardizing the improved process. A formal brief-out is provided to management on Day 5. The "*brief-out"* addresses before and after conditions, improvements realized and projected, and highlights the actions that must be completed to achieve the projected improvements. The objective of the Event week is to have a significantly leaner process in place and functioning before the close of the Event so that the organization can begin generating a return on its investment the following day. Fundamentally, this means that less human effort will be needed for a given level of output and people may be redeployed.

Debriefs are held with Leadership at the end of the first day, sometimes mid-way through, and always at the conclusion of the event. Changes to key improvement metrics are quantified daily. The status of open improvement actions on the *Kaizen "Newspaper"* is reviewed, roadblocks are identified for resolution, actions are assigned, and plans are developed for the following day. The *"Newspaper"* is used during the three weeks immediately following the event in conjunction with the follow-up checklist to continue the improvement process ("de-bugging" as needed, metrics review and follow-up, and closure brought to remaining action items identified on the *"Newspaper").*

Based on industry standards, a strict adherence to the seven-week improvement cycle should recover total cost (including contractor, participants, *"Lean Deployment Team",*

and materials) of the "*Kaizen"* in less than 120 days, netting a 3:1 annual return on investment. However, as the internal expertise matures, a 90-day recovery and 4:1 annual return on total investment should be expected. Initially, *"Kaizens"* are performed on a single value stream at one time, but as activities mature and develop more expertise; *"Kaizens"* can be performed on several *"Value Streams"* at a time.

Projects: In situations where the *"Root Cause"* of a problem is not readily apparent, or the complexity of the problem exceeds the capability of a "*Kaizen"* to resolve, a "*Project"* is the appropriate improvement process. In the *"Define Stage"*, the problem is scoped, boundaries are identified, the business case is defined, and resources are committed. *"Baseline conditions"* are documented in the *"Measure Stage",* "*Root-cause analysis"* and possible solutions are identified during the "*Analyze Stage"*. Solutions are implemented during the "*Improve Stage".* Standardization and institutionalization occur during the "*Control Stage".*

Various math approaches to problem resolution are available. The degree of complexity will determine the appropriate tools and team selection. The *"Black Belt"* is responsible for assessing the degree of complexity and identifying the correct approach through the *"DMAIC"* process to ensure that the lowest cost solution is achieved.

ORGANIZATION ASSESSMENTS

The "*Organization Assessment"* is a comprehensive examination of results achieved, Lean deployment, and Lean maturity of the organization. In all cases, "*Master Black Belt"* guides site Leadership and the *"Lean Deployment Team"* through the *"Organization Assessment"* process until such time as data indicates the team is capable of "self-assessment".

Ideally during the first two years, these assessments are conducted quarterly. This is the critical phase of the transformation wherein the groundwork is laid to successfully exit the model on schedule with the Lean expertise in place to sustain the Lean efforts and supplant the consultant.

Results are examined at the *"Value Stream"* level. Results reported on *"Quad charts"* and other designated reports (metrics, financial) are used to validate a *"Kaizen's"* return on investment. Some metrics, however, are often not impacted until the second year when engagement and change pace is sufficient to impact the bottom line.

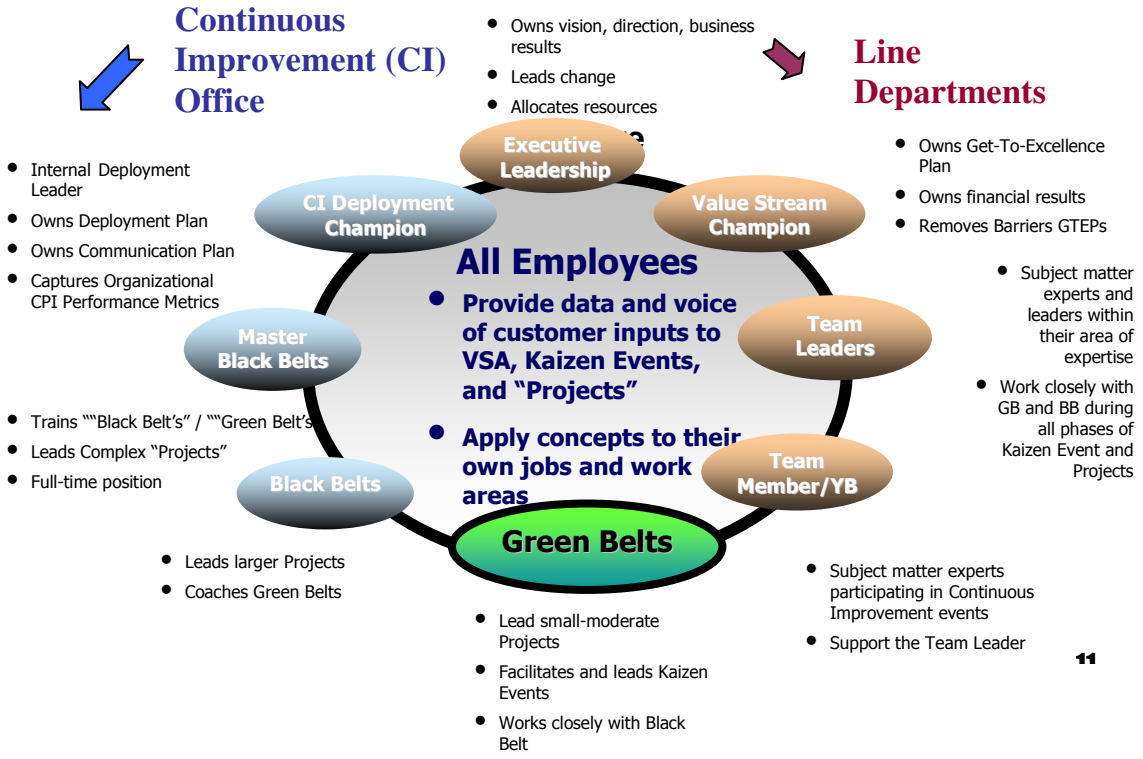
The *"Master Black Belt"* will assist the Agency in comparing the actual Lean activities to the Lean Six Sigma Model and determining if the organization is on track and address any noted deficiencies. This group will also examine and score the cultural elements of the *Organization Assessment*. Leadership, empowerment, organizational structure, human resource practices and policy, and application of Lean principles are all examined. Lessons learned are captured and necessary course corrections are identified. Roadblocks are identified and assigned to the party responsible for removal or elevated to the appropriate level for resolution.

The findings and agreed upon actions of the *Organizational Assessment* are summarized in electronic format and provided to the County CI Office.

RMA DEPLOYMENT APPROACH

Roles and Responsibilities

The following diagram shows the various roles and responsibilities of key personnel in each organization and activity for Lean deployment. A brief description of each is also provided in the paragraphs that follow.



RMA Continuous Improvement Deployment Structure

The deployment structure is made up of leadership and belts. Leadership in the deployment role owns and supports Lean implementation activities and assures that trained Lean Six Sigma facilitators (Belts) are available. The following describes more fully the role of each Deployment position:

RMA Deployment Champion

RMA implementation and deployment will be led by the Agency Director who will be the liaison to the County CI Office for communication, coordination, integration, and alignment of Lean deployment and implementation. He will also act as the Lean Champion. As the Lean Champion, he shall ensure all Lean activities conducted are aligned with RMA defined value stream(s).

A central role of the Deployment Champion is ownership of the Deployment Plan and the Communication Plan, and tracking and reporting *"Lean Events"* and results. The Deployment Champion will be responsible for creating the internal Lean capability (trained *"Green Belts"*). This will provide for responsive lean implementation by embedding belts in the line organizations. Initially, activities will be assigned to a consultant to execute the roles and responsibilities a *"Black Belt"* and to provide mentoring to develop the GB's full capabilities. Emphasis should be placed on using RMA personnel for *"Green Belts"* to ensure organic capability.

Master Black Belt
It is suggested that RMA utilize the services of the County's contracted *"Master Black Belt"* to provide consultation of deployment and implementation and to consult with the "*Black"* and *"Green Belts"*.

Black Belts
It is suggested that RMA utilize the services of the County's *"Black Belt"*. As implementation develops, it may be beneficial to have a *"Black Belt"* in the agency. This can be considered during the *"Organizational Assessments"*.

Green Belts
"Green Belts" facilitate teams in planning, executing, and following up on *"Kaizens"*. Initial *"Green Belts"* should be selected according to their personal skill set (credibility amongst peers, interpersonal skills, organizational skills, etc.), technical skill set (functional expertise, facilitation skills, etc.), and energy for Lean implementation.

RMA Line Department Structure

The line department roles are designed to prioritize, examine, improve, and control processes. Together with the *"Belts"*, they implement the Lean Six Sigma tools to transform identified processes and capture the metrics.

Executive Leadership
"Executive Leadership" consists of the Agency Director and Division Directors. They are responsible for the successful implementation of the Lean efforts. They must take ownership of Lean implementation at their activity, providing full support of efforts in their areas and throughout the Agency. They also need to be actively engaged in *"Lean Events"*, showing leadership by participation and example. Senior Leaders are responsible for the removal of any barriers or hindrances to effective Lean Implementation (processes, procedures, facilities, etc.) within their span of control.

Value Stream Champions
"Value Stream Champions" are typically the Division Directors, but where appropriate may include section managers. They are responsible for the effective execution of the GTEPs and within their division. They must be personally involved and support Lean efforts in their area, committing the necessary resources, and implementing the improvement actions. They also reap the benefits of the *"Lean Events"*.

Team Leaders and Team Members

These personnel are the key resources doing the work of process improvement. Their training and qualification levels are included in the Training section of this document. "*Team Leaders" and "Team Members"* are normally responsible for the work being improved, and participate in "*Kaizens"* and *"Projects"* during designated times. Their involvement is crucial and the reason Lean efforts succeed. They have the knowledge and motivation to implement improvements developed during *"Kaizens"* and *"Projects"*, and they own the results.

COMMUNICATIONS PLAN

It is critically important that the communications at all levels of RMA remain open and honest so the workforce and management are fully aware of the status and plans of the Lean efforts in order to get the best value from the improvement effort. To that end, an Agency *Communications Plan* has been developed and will be implemented within RMA.

There are numerous opportunities and means for communicating information related to RMA's Continuous Process Improvement (Lean) efforts. It is the goal of the RMA management team to take advantage of every opportunity and utilize whatever means are available to "get the word out" regarding its Lean efforts. The following summarizes the RMA's communication plan strategies and the target audiences for each element:

STAFF ORIENTATION (RMA STAFF)
Information and review of RMA's Service Excellence program and activities shall be included as part of the orientation activities for all new RMA employees.

RMA NEWSLETTERS (RMA STAFF)
Information and review of RMA's Service Excellence program and activities shall be included as part of every Quarterly RMA Newsletter.

WEB PAGE (RMA, COUNTY, PUBLIC)
The Agency and Division web pages will include information on the RMA's Service Excellence Program, as well as links to the CEO's Service Excellence web information.

DIVISION STAFF MEETINGS (RMA STAFF)
Division Directors and Section Managers will include Service Excellence reports/information as a regular part of their meeting agendas to ensure staff is up-to-speed on current Lean Activities and processes.

MANAGEMENT MEETING PRESENTATIONS (RMA MANAGEMENT)
The monthly RMA Managers Meeting will include regular reports and/or information items addressing County and RMA Service Excellence activities.

DIRECTORS MEETING PRESENTATIONS (RMA DIRECTORS)
The RMA Director will include Service Excellence reports and/or information as a standing item on every Director's Meeting Agenda.

BOARD OF SUPERVISOR PRESENTATIONS (CEO, COUNTY, PUBLIC)
The RMA Director shall provide information to the County Executive Office, (the Transformation Office) as needed to include within regular reports to the Board of Supervisors.

AWARDS (CEO, COUNTY, PUBLIC)
The RMA Director and Division Directors will author or co-author and coordinate the submission of nominations to relevant service excellence awards programs, and coordinate any RMA internal awards programs.

FUNDING

A successful RMA Lean Implementation will require initial funding for (1) contractor support, (2) personnel-hours for improvement workshops and events, and (3) material budget for identified equipment needs.

Costs of Implementation:

1. Contractor Support: Lean Contractor Support has been acquired by RMA to provide initial training. RMA is committed to investing additional funds as available to obtain contractor support for the Executive Planning Sessions and *"Value Stream Analysis"* events.

Some RMA Activities may have Lean Contractor Support already in place. The County's Continuous Improvement office may support continued efforts of the GTEP from the Discretionary Permit Processing VSA .

2. Personnel-Hours for Improvement Workshops and Events: As Lean implementation efforts increase in frequency and scope, they may impact budgets. While it is critical that financial metrics should be considered, they should not drive behaviors detrimental to Lean Implementation.

3. Material Budget for Identified Equipment Needs: During the course of many workshops or improvement events the need for various pieces of equipment, material, or tooling will be identified. Often these are relatively minor expenditures, but timely acquisition of these items can promote a culture of employee empowerment and can illustrate management support for rapid process improvement. Each division should expect its Services & Supplies budget to support the rapid acquisition of small-budget equipment, materials, or tooling to support *"Kaizens"* and *"Projects"* where they are the lead.

REDEPLOYMENT

Ultimately, the key objective of a Lean Thinking organization is to empower people to think about new ways to run the business - which drives innovative thinking and better ways to serve customers. It is not about reducing headcount, but about refocusing effort. As processes become more efficient, leadership must take steps to assure that staff has opportunities for *"Redeployment*", education and growth.

To capture these improvements, a natural "hierarchy" of *"Redeployment"* should be adopted as follows:

- Reduce Work backlog
- Increase workload (reducing outside contracts at the activity level)
- Redeploy people (may require retraining of individual)
- Take Attrition (ex: replace 1 of every 3)

TRAINING

The primary means of training of *"Lean Champions"*, *"Black Belts"*, and *"Green Belts"* will be through County sponsored training sessions. To the extent possible, RMA will partner with other County agencies for mentoring or other events.

Training Levels and Qualifications

RMA will have personnel qualified to perform the specific duties in the Lean transformation. The recommended levels and qualification requirements of these positions are listed below.

Black Belt: (Optional)

Definition: Under the direction of the *"Master Black Belt",* the *"Black Belts"* assist *"Value Stream Champions"* and *"Team Leaders"* to schedule, plan and execute *"VSAs"* and *"GTEPs"*. The *"Black Belts"* will be responsible for large *"Projects"* identified during *"Value Stream Analysis"*. *"Black Belts"* should normally be assigned to full-time process improvement for at least two years. As RMA Lean matures, *"Black Belts"* should normally possess 3-5 years of full-time, hands on experience.

Qualification Process: The individual possesses change agent, leadership, and project management skills and has successfully completed the coursework which results in a certificate. Upon completion of the certification, a *"Master Black Belt"* must approve the individual before he/she can perform unsupervised work at the *"Black Belt"* level.

Green Belt: (1-2 per division)

Definition: Under the direction of the *"Black Belt"*, the individual plans and executes the seven-week Kaizen cycle in support of identified Team Leaders, and assists the planning and execution of the VSA. *"Green Belts"* may also be assigned simple *"Projects"* identified through *"Value Stream Analysis*". *"Green Belts"* normally work for the *"Value Stream Champion"* and may be part-time or full-time depending on position in the organization.

Qualification Process: The individual possesses change agent, leadership and project management skills and must have completed an internal/external Lean Six Sigma course (40 hours of training), must have facilitated several *"Kaizens"* under the direction of a *"Black Belt"* or consultant, and completed a certification process.

Team Leader (as needed)

Definition: Leads the teams that are used to execute the *"Kaizens"*.

Qualification Process: The individual must have completed 4 hours of Lean training, training to be a team leader. *"Yellow Belt"* Training is recommended.

Team Member (as needed)

Definition: Employees that have participated on *"Value Stream Analysis"* or "*Kaizen"* teams.

Qualification Process: Have attended a basic Lean training event that was conducted specifically for the event or "*Yellow Belt"* Training which is recommended.

Lean Educated (All staff)

Definition: Employees that have been educated in Lean terminology, the five basic principles of Lean, and the basic Lean tools.

Qualification Process: Attended training such as internal/external Lean 101.

METRICS

Each activity will be required to capture and report Lean metrics. The metrics are divided into two categories: Lean deployment metrics and Lean execution metrics (results). The agency will utilize a standard reporting mechanism and submit them to the Director of Operations who will forward the Agency outcomes to the County Quality Improvement office and to the RMA IS section for updates to the RMA website.

Lean Deployment Metrics:

Lean Deployment Metrics are described below and summarized in the table below. Qualification requirement details are included in the training section of this document.

1. ***Number of "Value Stream Analyses" Performed:*** This metric indicates Lean activity and is expressed as the number of VSAs performed.

2. ***Number of "Kaizens":*** The number of "Kaizens" planned and actually performed. This is a measure of Lean activity and is expressed as the number of events performed.

4. ***Number of Employees on Teams:*** This metric is captured as the total number and percent of employees at the activity that have participated in a Lean event (VSA or GTEP) and should also include the number of teams on which employees have participated.

5. ***Number of "Projects":*** This metric measures the total number of "Projects" performed for more complicated improvement efforts. Normally performed by "Black Belts".

6. ***Number of "Green Belts":*** This metric is captured as a total number and percentage of employees at the activity that have been trained as "Green Belts".

7. ***Number of "Yellow Belts":*** This metric is captured as a total number and percentage of employees at the activity that have been trained as *"Yellow Belts"*.

8. ***Basic Lean Education:*** The number of employees educated in Lean Six Sigma basics. This metric is captured as a total number and percentage of employees at the activity that have been trained in the introduction to the five principles of Lean and the basic Lean/Six Sigma tools.

9. ***Lean Champion Training:*** This metric measures the number of personnel, including Lean Champion and *"Value Stream Champions"* that have been trained in the Lean Champion course.

10. ***Communication Plan Execution:*** This is a measure of the degree to which the Lean Communication Plan has been implemented.

Lean Execution Metrics:

The Lean Execution Metrics will report the progress towards achieving the desired results. Lean Execution Metrics should be reported on each *"Kaizen"* and *"Project"*. The results of the Lean efforts shall be posted in the Lean Web site using the "*quad chart"* format. Savings data entered on the quad chart should be validated by the fiscal office. An example of an execution metric is **Savings – Projected and Actual:** This metric measures projected and actual savings from value stream *"Kaizens"* and *"Projects"* for the fiscal year. Projected savings for the following two fiscal years will also be tracked. Examples of other metrics can include, but are not limited to:

1. Number of "*hand offs"*
2. *"Cycle Time"*
3. *"Lead Time"*

Specific metrics from each event tied to a VSA should also be rolled up to a higher-level quad sheet for the VSA. The data reported on the *"quad charts"* for the events are rolled up into one quad sheet to report the results for the entire VSA.

The tracking and reporting of RMA's Lean Execution Metrics will be the responsibility of the Agency's Deployment Lead, the RMA Operations Division Director.

Lean Deployment Metrics - 2009-03-16

Category	*Item*	*Goal*	*Status*
Leadership Training	VSC Trained (Deputy Directors)	100%	
Leadership Engagement	Directors Champion 1 Event	50%	
	Participate in SPS/EPS	100%	
Workforce Training	White Belt Trained	10%	
	Yellow Belt Trained	5%	
	GB Trained	2%	
	BB Trained	0%	
Green Belt Utilization	GB Facilitate 1 Completed Events/Projects	3	
Belt Certification	GB Certified	2	
	BB Certified	0	
Workforce Participation	Participate 1 RMA Event	20	
	Participate 1 County Event	10	
	Participate 2+ PWA Events	5	
	Participate 2+County Events	5	
Execution	RMA Kaizens	5	
	RMA Projects	5	
	PWA VSAs	1	
	EPS		Complete
	Portfolio(s)		Complete
Deployment (CPI Infrastructure)	Communication Plan		Complete
	Web Site		Complete
	Schedule, Metrics & Reporting System		Complete
	Organizational Assessment		

IMPLEMENTATION PLAN & SCHEDULE

LEAN ROLES & RESPONSIBILITIES

As noted in the Deployment Approach, there are a number and variety of important roles and responsibilities associated with establishing a *Lean* culture within RMA. As with the introduction of most new programs within an organization, change involves and is lead by those "at the top". Somewhat unique to the *Lean* program, change also involves and requires the participation and assistance of staff trained in *Lean* principals and tools – the "belts". Summarized below are the key roles and the individuals responsible for fulfilling them within RMA.

Deployment Champion: Chris Stephens, Agency Director

Deployment Lead: Jennifer Padre, Operations Director

Executive Leadership: Chris Stephens, Agency Director
Bob Gallagher, Environmental Health Director
Kim Rodriguez, Planning Director
Jim MacDonald, Building and Safety Director
Jim Delperdang, Code Compliance Director
Jennifer Padre, Operations Director

Certified Green Belts: Liz Sandoval
Joe Clark
Nellie Neri
Jose Moreno

In addition to the RMA roles listed above, it is important that the Agency also align itself with the *Lean* activities taking place County-wide. This is accomplished in part through active participation on the Service Excellence Council established by the CEO's Office through its Continuous Improvement Office. The Agency Director, Chris Stephens, will serve as a member of this committee. In his absence, Kim Rodriguez, the Planning Director, will serve as his alternate.

As noted on the previous page, the Deployment Lead is responsible for tracking and reporting the Agency's progress toward implementing the Lean program. They are also responsible for tracking and reporting Event results and keeping quad sheets and other reporting information organized and summarized for the agency. As such, they also play a critical role in deploying the Lean Communication Plan.

IMPLEMENTATION SCHEDULE – 2009

Through the Executive Planning Session, a number of Value Streams were identified within RMA that the executive leadership targeted for review, analysis and improvement in 2009. The following table summarizes those Value Streams, and identifies the lead and schedule for each.

Target Value Stream	*Who*	*When*
Inter-Agency (County Wide)		
Discretionary Permitting	Chris Stephens/ Kim Rodriguez	September
Establishment of Code Compliance Division	Chris Stephens/ Jim Delperdang	June
Intra-Agency (RMA Internal)		
Recruiting Process	Liz Sandoval	June
Employee Award Process	Jim MacDonald	July
Finalize and Execute LSS Deployment Plan	Chris Stephens	February
Informal Communication Process for BOS	Bob Gallagher	July
Deploy RMA Branding Web Services	Joe Clark/ Jennifer Padre	March
Update Handouts and Brochures	Kim Rodriguez	June
Review & Update Policies and Procedures	Chris Stephens	December
Clarify Review / Audit Process	Jennifer Padre	September
Improve Customer Satisfaction Survey Forms & Methodology	Jim Delperdang	September
Develop Protocol for Customer Satisfaction Standards	Jennifer Padre	September
Grass Roots Lean Events		
Billing/Process/Solomon Upgrade/Collections	Jennifer Padre/ Joe Clark	March
Review & Implement Safety Program Improvements	Liz Sandoval	August
Review & Improve Performance Review Process	Liz Sandoval	August
Review Leave of Absence Procedures	Liz Sandoval	June
Mail Processing	Jessica Griego	Completed
East County EHD Services/Office	Bob Gallagher	July

Glossary of Terms

Analyze Stage - The third stage of the Lean Six Sigma DMAIC where data is statistically analyzed and/or maps are analyzed for waste.

Baseline Conditions - A snapshot of the state of a process frozen at a point in time.

Black Belt – An individual who has met the Lean Six Sigma training criteria to lead Lean Six Sigma Projects. Black Belts have demonstrated mastery of the subject matter through the completion of project(s) and an exam.

Brief out – Meetings held by team members/leads and belts with Value Stream Champions at scheduled intervals of a Kaizen or Project to review status of open improvement actions, roadblocks, and assignments. The final brief-out addresses before and after conditions, improvements realized and/or projected, and highlights the actions that must be completed to achieve the projected improvements.

Control Stage – The fifth and final stage of the Lean Six Sigma DMAIC where improvements are controlled through the design of a control plan, training plan, and communication plan.

Cycle Time – The time it takes to successfully complete the tasks required for a work process.

Define Stage – The first stage of the Lean Six Sigma DMAIC that identifies the problem that needs to be solved. Several Lean Six Sigma tools are utilized to adequately define the problem, such as the Charter and Newspaper.

Deployment – The function of positioning Lean Six Sigma County or Agency-wide.

Deployment Champion – The individual who owns the communication, coordination, integration, and alignment of Lean deployment and implementation. In RMA, this person is the Agency Director.

DMAIC – Refers to a data-driven quality strategy for improving processes. It is an acronym for "Define, Measure, Analyze, Improve, and Control"

Executive Leadership – The RMA Executive Leadership consists of the Agency Director and Division Directors and where appropriate, Managers. They are responsible for the successful implementation of the Lean efforts.

Executive Planning Sessions – A two to three day session where success is defined in the eyes of the Executive Leadership, and the level of commitment and resources required to achieve a successful Lean implementation effort are identified.

Future State Map – A representation of an improved process.

Get to Excellence Plans (GTEP) – The primary product of a Value Stream Analysis. A document that lists the various activities that would lean to the future state of a value stream. Activities are organized as Projects, Kaizens, or Just-Do-Its.

Green Belt - An individual who has met the Lean Six Sigma training criteria to lead Lean Six Sigma Kaizens. The green belt employee plays an important role in executing the Six Sigma process at an organization level.

Handoffs – A count of the number of time a document or product changes hands.

Implementation – The process by which Lean Six Sigma is put into practice.

Improve Stage - The fourth stage of the Lean Six Sigma DMAIC that identifies the solutions to the process being studied.

Information and Knowledge Management – A means of organizing information, resources and metrics to create synergy of execution and learning.

Just-Do-Its – One of the elements of a Get to Excellence Plan. An activity that can be accomplished without further analysis.

Kaizens – A Japanese term that means continuous improvement. One of the elements of a Get to Excellence Plan. An activity that is designed to improve a process that exhibits moderate complexity in one to five days.

Knowledge Sharing Groups – Teams that participate in Knowledge sharing utilizing a knowledge management tools such as the County "Teaming Site".

Lead Time - The amount of time, defined by the supplier that is required to meet a customer request or demand.

Lean Belts – The team of people trained in Lean Six Sigma to facilitate Lean Events. (The exception is the Yellow Belt who has received the basic information to be a fully participating Team Member.)

Lean Deployment Team – Comprised of the Deployment Champion and Lean Belts.

Lean Events – A generic term that describes the body of activities whereby teams and belts work towards improving any given process or value stream.

Lean Six Sigma – A process improvement model that is a combination of Lean and Six Sigma designed to eliminate waste and reduce variation.

Lean Targets – The objectives of a Kaizen, Project, or Value Stream Analysis.

Lean Metrics – Financial, behavioral, and core-process measurements that help you monitor your organization's progress toward achieving the goals of your lean initiative.

Master Black Belt - Six Sigma Quality experts that are responsible for the strategic

implementations within an organization.

Measure Stage - The second stage of the Lean Six Sigma DMAIC where data is quantified to best represent a process.

Newspaper - A Lean Six Sigma tool that lists issues and possible improvement actions.

Organizational Assessments - A comprehensive examination of results achieved, Lean deployment, and Lean maturity of the organization. Ideally during the first two years, these assessments are conducted quarterly.

Projects - One of the elements of a Get to Excellence Plan. An activity that is designed to improve a process that where the *"Root Cause"* of a problem is not readily apparent, or the complexity of the problem exceeds the capability of a "*Kaizen"* to resolve.

Quad Chart – A single page report that is designed to capture objectives, metrics, results, and lessons learned from a Project, Kaizen, or Just-Do-It.

Redeployment – Steps that leadership takes when process improvements require reassignment and/or retraining of staff.

Root Cause - An identified reason for the presence of a defect or problem. The most basic reason, which if eliminated, would prevent recurrence. The source or origin of an event.

Root Cause Analysis - Study of original reason for nonconformance with a process. When the root cause is removed or corrected, the nonconformance will be eliminated.

Team Leader – The Team Leader is generally a top-level technician who also is a natural leader. They interface closely with the Green or Black Belt to develop the baseline conditions, gather initial metrics, and assure that the event is on track.

Team Member - These personnel are the key resources doing the work of process improvement. Their involvement is crucial and the reason Lean efforts succeed. They have the knowledge and motivation to implement improvements.

Value Stream Analysis – A process whereby all the steps in a process are examined for waste and opportunities for improvement.

Value Stream Champion – People who are responsible for the effective execution of the GTEPs and within their division.

Value Streams - All the steps (both value added and non-value added) in a process that the customer is willing to pay for in order to bring a product or service through the main flows essential to producing that product or service.

Yellow Belt - A Yellow Belt typically has a basic knowledge of Six Sigma, but does not lead projects on their own, but rather participates as a core team member.