Parking Lot Painting Project

South Carolina State Park Service

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SC Parks Recreation and Tourism
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Project Goal: To establish a method to paint all of the parking lot stripes in the State Parks Of South Carolina on a three year rotation using Park Service personnel and equipment. The plan will be ready for implementation by July 1, 1998. The first parking lots to be painted in the first year rotation will be done in the fall of 1998 and early spring of 1999. The success of this project will mean that no parking lot will go more than three years without fresh paint and that the Park Service will save at least fifty percent of private contracting fees.

Problem: The State Park Service has fifty parks across the state. At least thirty of these parks have paved parking areas with painted lines for marking the parking spaces. From the time when the first paving was done in the parks until 1994 there was no provision for repainting parking lines. In 1994 the Park Service bought a striping machine. Since then we have attempted to paint all of the lines. Many of the lines were barely visible and some had to be remeasured and marked for painting because of the length of time between paintings. Personnel on some parks had attempted to keep lines painted by various means such as borrowing equipment or painting by hand. Sources for borrowing have dried up and painting parking lot stripes by hand is very inefficient. Since the initial attempt to paint all the parking areas in 1994, we have painted by request and when we had a person available. There is no system for keeping records on when painting has been done. The South Carolina Park Service’s mission of providing quality visitor services can be aided by maintaining well marked parking areas for our guest.
The goal for this project is to implement a method to get the parking lots in the State Park Service painted on a regular basis. The desired state is that all parking lots are neat in appearance and that the park visitors will be able to use our parking areas without confusion.

When the lots are not painted often enough to have visible lines, visitors do not park in the most orderly fashion and lot capacity goes down considerably. Also many times cars become blocked in by random parking and visitors have problems getting in and out of lots.

After making a list of the parks that have paved lots and polling the park staffs I have found that fifty percent have been painted in the last three years, twenty-five percent more in the last five years and twenty-five percent have not been done at all since 1994 when we started painting stripes. Some parks have no visible lines left.

In an attempt to determine the causes of not getting all of our lots painted on a regular basis I got together with Darryl Moore, our Service Center manager, and we looked at records kept on previous years paintings. We also did some brain storming and put down all the reasons that we could come up with that had kept us from reaching our desired state. The reasons we came up with are:

Other priorities
machine breakdowns
lack of production
bad weather
limited window of opportunity
no set procedures
operator inexperience
machine not cleaned properly
no schedule for doing paintings
not enough input from parks
poor record keeping
operator position vacant
changed from oil to water paint
We then discussed the factors and identified what we thought were the key elements. We put these into two categories.

What we can control:
- no set pattern of operation
- operator inexperience
- machine not cleaned properly
- no painting schedule
- record keeping
- training
- machine breakdowns
- vacant position

What we cannot control:
- other priorities
- bad weather
- limited window of opportunity
- machine breakdowns
- vacant position

After completing these lists I evaluated the key elements to decide what are the major factors and why they are a problem. I based my decision on personal observation and personal familiarity with the process. The three major factors in our control that are problems are:

- lack of properly trained operator
- lack of planning
- wrong machine for water based paint

After further discussion with Darryl Moore and evaluation of this information I have developed these steps to achieve the stated goal.
1- Get bids on proper machine for spraying water paint
   who- Darryl Moore
   when- January, 1998

2- Review bids and specs on machines
   who- Darryl Moore and Mike Clark
   when- January, 1998
   resources required- estimated $4000.00 out of maintenance budget

3- Requisition for purchase new machine
   who- Mike Clark
   when- January, 1998
   other support required- Chief of maintenance approval

4- New machine on site
   when- February, 1998

5- Fill vacant position
   when- February, 1998
   other support required- Human Resources

6- Train operator
   who- Darryl Moore
   when- March, 1998
7- Paint trial park for evaluation  
    who- operator  
    when- March, 1998

8- Evaluate trial  
    who- operator, Darryl Moore, Mike Clark  
    when- March, 1998  
    what- time, quality, proper cleaning of equipment

9- Determine Parks to be painted in fall of 1998  
    who- Mike Clark and Park Superintendents  
    when- May, 1998  
    where- maintenance planning sessions

10- Divide parks into three groups for painting rotation  
    who- Mike Clark  
    when- Fall of 1998

Possible obstacles to overcome for the above steps to go as planned are finding a good machine, finding and hiring a good employee for the position, and getting support for the purchase of the new machine. If money is not available to buy the new machine we can continue as best we can with the old machine until we can get the new one. The hardest obstacle to overcome will be not having a good, trained employee in this position. If I cannot get and keep some in this position long enough to get the program going it will be almost impossible to stay on schedule. If this is the case I will adjust the time line and get as much done as possible by adjusting other priorities.
Process of evaluation:

Over the next three years I will keep records of when and where painting is done. This information will be given to me by the operator from his daily log during painting operations, I will also ask the operator to note on the log any down time caused by equipment failure and what caused the failure. I will interview each Park Superintendent during the maintenance planning sessions about their needs concerning painting of parking lots and how the paint is holding up. I will also personally observe parking areas during my routine visits to parks. By comparing the observable conditions of the lines to the data base we will be able to evaluate how actual conditions compare to the desired state and make adjustments as necessary. By looking at the log of machine down time and causes we can get an idea of machine performance and by going over the operators log we can keep up with production of the operator.