Superintendent's Order: Flagging and Temporary Demarcation Guidance

Approved: Michael J. Tollefson, Superintendent, Yosemite National Park

Effective Date: November, 2004

Sunset Date: November, 2005 (This order updated annually)

I. PURPOSE
This Superintendent's Order provides guidance for applying and removing flagging and other forms of temporary demarcation from work, project, and incident sites. This order will reflect the park’s interest and effort to minimize the use of flagging, barricades and other forms of temporary demarcation while allowing for their uses for the safety of visitors and staff, and efficient project management. Flagging, although useful and often necessary, creates an unwanted impact on the environment by reducing the natural aesthetic qualities of a national park. This policy will apply to all park divisions, contractors, and cooperators. This policy will not apply to uses of cones or barricades for traffic control situations or where laws and regulation require their use.

II. OBJECTIVES
The objective of this policy is to ensure that flagging and other forms of temporary demarcation used in Yosemite NP are used only when necessary, and for the minimal length of time necessary to achieve its purpose. Each division will be responsible for the installation and removing of any flagging/barricades they use. Factors to be considered when determining if flagging/barricades are necessary are public safety, park operations, aesthetics, and wilderness values. Flagging/barricades should be considered only when alternatives are not feasible.

III. DEFINITIONS

A. Flagging
Plastic flagging has many applications. The flagging is typically PVC, brightly colored or patterned and comes in rolls of 1 to 4 inches wide. Biodegradable flagging material is available.

B. Anchored Markers
- Pin Flags: Vinyl flag attached to wire or PVC. Flags are typically brightly colored 2.5" to 5" squares.
- Stakes: Typically wood, metal or plastic that may be colored, usually tagged, flagged or marked.
- T-post-Metal fence post 4-5' in height.
- Any other vertical marker set into the ground.
C. Cones
Typically used as a traffic/pedestrian control device or to identify ground level hazards.

D. Barricades
Typically used as a traffic/pedestrian control device or to identify ground level hazards. Barricades can be flat, fold-out "sawhorse" style or barrel shaped.

Temporary Construction Fencing: Heavy grade net-like plastic rolls 4 feet in height. Fencing is attached to posts, and is used to exclude entry into an area. Fencing is typically orange or black.

E. Surface Marking
Typically spray paint used on pavement, trees, or other fixed features.

IV. Flagging Practices

A. Background
Most park operations, cooperators, and contractors use various forms of temporary and semi-permanent markings to highlight specific features. The easiest type to use is rolled vinyl tape that can be tied to natural features and various stakes. Once its specific use is complete there is often little effort made to collect and dispose of the vinyl strips. Often there is a hesitation to remove markers as it is unclear whether the flagging is still serving a purpose. Flagging debris tends to accumulate, compromising park aesthetic qualities.

B. Flagging Uses
The below summary is not comprehensive but rather indicative of the widespread use of flagging and other forms of demarcation in park operations:

Protection:

- Fire Operations: The Fireline Handbook identifies flagging use and is mandatory in communicating and identifying hazards, escape routes, heliports, etc.

- Law Enforcement/Traffic Control: Flagging and barricades used to cordon off areas, such as crime scenes, traffic control, or hazardous conditions usually for a short period.

- Search and Rescue: Flagging used to mark search grids and routes.

- Hunting Patrols: Portions of Yosemite NP boundary is delineated with flagging.

- Wilderness: Flagging used during SAR and fire events.

Resources Management and Science:

- Research permittees often require use of plastic tape or pin flags to identify study areas.

- Archeological investigations use flagging to identify sites in advance of project work such as mechanical thinning and construction projects.
Facilities Management

- Hazard tree identification.
- Trail work/road work.
- Utility line location/identification.
- Cording off facility hazards, often for several weeks or months.
- Temporary Fencing as required by law.
- Contractors.

Project Management

- Project coordination with contractors who use flagging and barricades as required. Temporary fencing is also used to cordon off job site as required by law.
- Delineation of design elements and proposed layouts.
- Location of existing utilities and infrastructure within project work limits.
- Location of survey bench marks.
- Construction surveying and layout.

Administration/Contracting

- Purchases for the warehouse will include biodegradable flagging material.

Business and Revenue Management, and Interpretation

- Occasional use.

V. Flagging Policy

A. Conditions/Restrictions

Evaluate all projects and tasks to determine if alternatives that will have minimal aesthetic impact can be used. If it is determined that flagging is necessary, then the following conditions are as follows:

Product. Use biodegradable flagging whenever possible. These tapes are made of non-woven cellulosic material derived from wood pulp. They are completely non-toxic to humans, animals, and the environment. Complete degradation occurs outdoors in 6 to 24 months depending on specific environmental conditions.

Fluorescent color tape should be avoided. Consider using wood stakes.

Labeling. Vinyl or PVC tape and pin flags need to be marked with a permanent marker, such a Sharpie, with date and name of park point-of-contact for the project and division/branch. Flagging that has survey information or other notations will be assumed to be the responsibility of the Division of Project Management or the Division of Facilities Maintenance Management, and the respective Division Chief should be notified if there is any question about location or duration of use of the flagging.
Labeling is not required when:

- Flagging is within construction limits of active projects.
- Flagging is used during a wildland fire event. However, flagging during the restoration phase needs to be labeled or removed.

**Placement.** As much as practical placement of flagging, stakes, etc. should be low to the ground, set back from roads and trails, and placed in a manner as to be unobtrusive to park visitors.

**Wilderness.** To maintain the aesthetic wilderness value, any type of flagging is discouraged unless it is deemed absolutely necessary. Immediate removal of flagging after use is mandatory.

**Research Permittees.** Research permits will specify an only-as-needed restriction for flagging. Convenience of researchers will not be the sole consideration in permitting the use of tape or pin flagging or other demarcations.

**Contracts.** Contracts for projects requiring flagging need to include elements of this Superintendent's Order for the minimal use, duration, and prompt removal of flagging.

### B. Duration of use

The duration of use of any flagging, barricades, cones, or other forms of temporary demarcation is limited to 30-DAYS. Length of use beyond a 30-Day period needs approval by the Division Chief of that project. Use of flagging, etc. for a period greater than 6 MONTHS needs written approval by the Superintendent.

Exception to this notification process will be superintendent approved construction projects where contracts specify the need and the application of flagging and flagging management is in accordance with the contract.

Any form of temporary demarcation remaining in place without approval can be removed. However, reasonable attempts should be made to contact the responsible division in order to clean up the site under agreeable circumstances.

### C. Removal

All flagging from a job site or an emergency event will be removed immediately after that project or situation concludes by the entity that installed it. If flagging is not in use for a purpose, it is litter.

Biodegradable flagging needs to be removed immediately after use, as well. Although it is an environmentally better product, it can take 6-24 months for this product to degrade totally, creating litter and aesthetic impacts.

Burn Plans and Burn Area Emergency Rehabilitation (BAER) plans will assign responsibility for the removal of flagging after an incident.

Research permits will specify justification for flagging use and identify approximate timeframe for its removal.

Contracts will specify all aspects of the policy including removal of all flagging material and clean-up of job site.
VI.  Barricades or cones for non-traffic control purposes
   A.  Uses

   Barricades, cones, and temporary plastic fencing should be used in non-traffic situations only when there is a notable safety hazard (e.g. trench, walkway, stairs in disrepair, etc.).

   Many such safety issues often take several months or longer to resolve due to repair costs and other priorities. When it is determined that the hazard will not be corrected within 6 MONTHS then the site should be evaluated to see if approved fencing or other suitable material compatible with park design can be used temporarily. An example is barricading an area using post and cable rather than orange cones. Use of any materials will meet OSHA or other regulatory requirements. Facility Management along with the Historical Architect and Landscape office will work towards improving long-term barricade design.

   B.  Removal

   All barricades, cones, and fencing will be removed from a project site or emergency event immediately after that project or situation concludes.

VII. Pavement paint and other surface demarcations
   A.  Uses

   Paint on road surface, is used in situations where flagging is not suitable. Non-traffic control surface paint marking is an aesthetic impact. If it is necessary to use, paint application should be limited to the minimal amount needed and only with water-based paint. Paint should not be applied to natural features such as trees or rocks. Notification for extended duration use will be the same as that for flagging (see V. B).

   B.  Removal

   All evidence of surface marking should be thoroughly from pavement immediately after the project concludes. If washing does not remove the paint than a matching surface color paint can be used to cover the markings.

--- End of Superintendent's Order ---