

AREA
CLOSED



Signage

- Targeted education message
 - Provides an educational message/park rules without the presence of park staff ([Marion & Reid, 2007](#))
 - Align interests of management and users
- Proper placement is key
 - Trailhead signage not effective for depreciative behaviors, particularly with repeat users ([Guo et al., 2017](#); [Kidd et al., 2015](#))
- Disconnect on language – make it as effective as possible

South Mountain Park Study

- Test practical management strategy
 - Research-informed additive treatments
 - Record social trail usage and resilience of treatments
- Resistant social trail in urban mountain preserve, 3.5m
 - 16,000 acres, surrounded by users, many repeat locals
 - Popular, accessible trail with variety of new/regular users
- Research gap on site management techniques
 - Locked up in practitioner experience
 - Many studies have focused on signage (Hockett et al., 2017)
- Research gap on large urban parks (Alberti et al., 2003; Mora-Bourgeois, 2006)

PLEASE DO NOT LEAVE DESIGNATED TRAILS

Your off-trail tracks compress the soil and trample plants, preventing new growth and causing erosion damage.

Focus Theory of Normative Conduct



Help us protect our mountain preserves.

City of Phoenix

- Injunctive-Proscriptive wording: tell visitors what they should *not* do (proscriptive) instead of what they should do (prescriptive) – focus
- Petrified Wood National Park – 1 out of every 20 visitors stealing wood, down to 1 out of every 60 (Cialdini et al., 2006)

Attribution Theory

PLEASE DO NOT LEAVE
DESIGNATED TRAILS

Your off-trail tracks compress the soil and trample plants, preventing new growth and causing erosion damage.

- Cause visitors to make the connection between their own behaviors and depreciative impacts

Even one person can prevent recovery.
Help us protect our mountain preserves.

- **Your footsteps** – 40% reduction with vs. 20% reduction without, St. Lawrence Island National Park (Canada) (Bradford & McIntyre, 2007)

Theory of Planned Behavior

Your off-trail tracks compress the soil and trample plants, preventing new growth and causing erosion damage.

- Attitude toward a behavior largely determines a person's behavioral intentions -- behavioral effects, control, and norms (Ajzen, 1991)

Even one person can prevent recovery. Help us protect our mountain preserves.

- Builds on attribution message
- 10-20% increase in compliance, Yellagonga Regional Park (Australia) (Hughes, Ham, & Brown, 2009)

A photograph of a dirt trail winding through a rocky, brushy landscape. The trail is the central focus, leading towards a large rock formation in the distance. The surrounding area is filled with various types of rocks and sparse, dry vegetation. In the foreground on the right, a yellow surveying pole with a black top and a red bucket are visible. A black rectangular box with white text is overlaid at the bottom of the image.

75.4% observed usage



