

Some thoughts for GOGA's Natural Resources Desired Conditions...Don Weeks 01/04/07

Sources

Three available sources for guidance on Desired Conditions for the NPS and how it all fits into the new park planning framework are; 1) 2004 Park Planning Program Standards, 2) DSC 2005 final draft Park Planning Program Sourcebook, and 3) draft D.O. 2-1, Resource Stewardship Planning.

2004 Park Planning Program Standards:

p. 19, last par. "Once the overall approach to the management of particular areas throughout the park is established through management zoning, area-specific management prescriptions are developed for each particular area. These prescriptions describe an integrated set of resource conditions and visitor experiences to be achieved and maintained over time, along with indications of the kinds of management and development that would be appropriate to maintaining those conditions."

pp. 23-24, Table: Area Specific Management Prescriptions, brief definition and standards.

p. 30, Focus on Fundamental Resources and Values, par. 1. "Consideration of the park's fundamental resources and values drives all aspects of the GMP process and outcomes, providing the primary topics for planning issues, desired conditions, impact analyses, and value analysis."

p. 35, Purpose and Scope, par. 2: "Through program planning, park staffs are able to translate the qualitative statements of desired conditions established through general management planning into measurable or objective (based on observation or communication) indicators that can be monitored over time to assess the degree to which the desired conditions are being achieved. Based on knowledge gained through this analysis, technical experts recommend the comprehensive strategies need to achieve the desired conditions, which in some instances may require years or decades to achieve."

2004 Draft Directors Order 2.1 (Resource Stewardship Planning):

p. 1, Background, last par, sent 2: "Each management prescription consists of mutually compatible desired conditions for resources and visitor experineces to be achieved and maintained over time and recognizes that their attainment may not be realized until many years into the future."

p. 4, 4.2.1: "The elements necessary for logical, trackable resource stewardship planning begin with the desired conditions for resources and resource condition-dependent visitor experiences contained in the park's general management plan."

p. 4, 4.2.2: "The resource stewardship plan serves as a bridge between the qualitative statements of desired conditions usually established in the general management plan and the measurable goals and implementation actions identified in park strategic plans."

Attachment 1 - p. 2, Desired Conditions - "Desired conditions in a general management plan are usually expressed as a qualitative description (e.g., natural resources are unimpaired and generally unaffected by human influences while natural landscapes and natural sound conditions predominate; provide maximum protection for certain exception or fragile resources, such as unique fossils and sensitive archeological sites). The desired conditions for resources and resource condition-dependent visitor experiences in a GMP serve as the cornerstone of resource stewardship planning."

2005 Final Draft Park Planning Program Sourcebook

p. 95, Chapter 7, par 1: The GMP focuses on what is most important about the park and prescribes the desired resource conditions, associated opportunities for visitor experiences, and kinds and levels of management, development, and access appropriate to achieving the desired resource conditions and visitor opportunities."

p. 120, last box, par. 1: "Because of the interrelationships among park resources and visitor use and experiences, the desired condition for a particular resource or value in a particular zone may not be the optimal condition."

p. 121-122: Idea list for use in identifying and describing desired conditions.

p. 127, Area-Specific Desired Conditions, par. 1: "Once potential management zones have been allocated to particular geographic areas throughout the park, consideration can be given to developing more detailed desired conditions needed to address the planning issues and to provide adequate guidance for management of specific geographic areas, location, or features. Area-specific desired conditions focus on fundamental and other important resources and values, the visitor experience opportunities associated with them, and the types and levels of management, development, and access that would be appropriate in a particular location consistent with how the area has been zoned."

p. 128, par. 2: "The desired conditions identified in the GMP will guide the identification of measurable indicators and standards needed for monitoring and adaptive management."

Along with these three sources, I have also had informal discussions with Gary Mason who provided his definition of Desired Conditions for the NPS, "*A qualitative description of the integrity and character for a set of resources and values that park management has committed to achieve and maintain.*"

Interpretation

Purpose and Significance

1. Basically summarizing the **Foundation Statement** here (11/06 draft)... First we have to look at why GOGA was established, which is described in the **Park Purpose**: *The purpose of Golden Gate National Recreation Area is to offer national park experiences to a large and diverse urban population while preserving and interpreting its outstanding natural, historic, scenic, and recreational values.*
2. Then we look at the GOGA **Significance Statements** related to natural resources, which support the Park Purpose, defining what is most important about the park's resources and values. These significance statements are:

The convergence of the San Andreas Fault, San Francisco Bay at the Golden Gate, and the California coastline creates a dynamic landscape and environment of exceptional scientific value.

The undeveloped remnant coastal corridor of marine, estuarine, and terrestrial ecosystems supports exceptional native biodiversity and provides a refuge for one of the largest concentrations of rare, threatened and endangered species in the national park system.

The headlands of the Golden Gate and its scenic landscape, vistas, and coastal environment are internationally recognized as the panoramic backdrop to the metropolitan San Francisco Bay area and contribute to the quality of life.

The continuum of Park resources at the doorstep of the San Francisco Bay area provides an abundance of recreational and educational opportunities.

3. From these significance statements, fundamental resources and values related to natural resources were identified for GOGA: *Geologic Resources, Marine Environment, Coastal Ecosystems, Threatened and Endangered Species, Water Resources, Dramatic Settings, Preserved Open Spaces, and Diverse Park Settings.*
4. With the *Park Purpose, Park Significance Statements* and *Fundamental Resources and Values*, we can now go into describing the natural resource conditions to be achieved and maintained over time (*Desired Conditions*).

Now, it is at this step where some may recommend that you first need to wait for establishing the overall management approach of particular areas throughout GOGA through management zoning... THEN area-specific management prescriptions can be developed for the respective areas (*Desired Conditions*),

describing the respective goals for natural resources and visitor experiences to be achieved and maintained over time.

It is my opinion that you first start with the Desired Condition of the resources and values based on Park Purpose and Significance, and then wrap appropriate management zoning around that, which maintains the Desired Condition...with some obvious “give and take” in the developed areas.

5. Once you have your Desired Conditions for the appropriate management zoning/management prescriptions defined, you then can look at what issues impede GOGA from achieving/maintaining the Desired Condition for the priority (fundamental) resources.
6. Next would be development of strategies that begin to work through the issues, moving the priority resources towards the Desired Conditions. According to Park Planning Program Standards, this is to be accomplished at the next planning level after the GMP, the Program Management Plans (for natural and cultural resources this is the Resource Stewardship Strategy). I suspect that based on available expertise, funding, available information, and complexity; issue development and strategy development may be included at some level in GMPs.
7. Implementation Plans are the next step...taking the high-priority strategies (elevated in the park’s Strategic Plan) and preparing detailed project statements from the strategies and seeking funding to implement.

To extend some further thought, as scientists, we are anxious to fold well-researched resource-specific measurable strategies into the GMP level...but the reality is that the GMP is a comprehensive master document...looking at everything from A-Z, defining management zones to identifying desired conditions for fundamental resources and visitor experiences....there is a finite amount of time, budget, and expertise to accomplish each plan...and as such, we typically go to a qualitative level of discussion in addressing the significant resources, etc...so we have different layers of planning, that work from broad qualitative concepts (GMPs)...to specific quantitative strategies and implementation (RSSs/Implementation Plans)...**with the Desired Conditions in the GMP being the thread that connects these different planning elements after the GMP.**

The qualitative desired conditions should describe how the park is to function and what experiences it will provide to visitors (ultimate management goals), rather than the strategies and associated products needed to get there.

When you look at the 2004 *Park Planning Program Standards* for Park Program Plans (see below), it is my understanding that the qualitative GMP Desired Conditions do not change through the planning framework... and building from this is the addition of resource-specific measurable strategies (maybe several that work toward the same GMP Desired Condition) and ultimately detailed implementation (project statements) of these strategies that work toward maintaining or achieving the GMPs Desired Conditions.

"Through program planning, park staffs are able to translate the qualitative statements of desired conditions established through general management planning into measurable or objective (based on observation or communication) indicators that can be monitored over time to assess the degree to which the desired conditions are being achieved. Based on knowledge gained through this analysis, technical experts recommend the comprehensive strategies need to achieve the desired conditions, which in some instances may require years or decades to achieve."

Natural Resource Desired Conditions for GOGA

It is my current opinion that GOGA can not go very specific with the description of desired conditions for natural resources in the GMP. The primary reason is that once you cross over to the quantitative side, you are face with complex detail for the various natural resources, which are integrated with each other. This would require expertise, information, funding, and time that would typically extend beyond the scope of the GMP. For example, with Redwood Creek you would need to describe the desired river morphology (physical aspects), desired water quality (chemical aspects) and desired aquatic ecology (biological aspects)...one might argue that if you get the physical and chemical aspects right, the appropriate biota will follow, but that does not take into account things like visitor pressure (excessive harvesting)...so where do you begin or

stop with this to paint the “desired picture” adequate for the GMP? You do not want to be so specific with the desired condition that it later restricts the next planning elements (RSS, Implementation Plan) with appropriate issue and strategy development.

I would suggest that you keep the GMP Desired Condition qualitative for GOGA’s natural resources, allowing the issue development and strategies to later speak more specifically about the individual elements (pH, water temperature, stream discharge, sediment load, stream sinuosity, channel slope, etc...), which compose the DC. Each of these individual elements (indicators) should include target values that, when reached, support the DC, and when all these elements meet the target values, the DC is achieved and should then be maintained.

Here are the qualitative DCs we developed for Mammoth Cave NP, working with the park hydrologist on MACA’s Water Resources Management Plan...we actually called them “Water Resource Goals” and made the recommendation that they be considered for Desired Conditions in the next park GMP, since DCs are only to be developed within the GMP:

- “1. Chemical (water quality) integrity of park waters is improved and/or maintained to support all native life and to meet or exceed designated use standards.
2. Hydrologic (water quantity) integrity of park waters (surface and ground waters) is improved and/or maintained to support natural geomorphic processes of fluvial and aquifer systems and to support native life.
3. Exotic species are removed from the park and future introduction of exotics is prevented.
4. Partnerships exist with stakeholders who share common interests with Mammoth Cave National Park on the preservation of water resources.
5. Park visitors and general public have an understanding and appreciation of the park’s water resources and conservation of park water resources for this and future generations.”

For GOGA, I would envision similar qualitative Desired Condition statements at the GMP level for the fundamental resource water, with some modification that supports the GOGA Significance Statements. For example:

1. Chemical (water quality) integrity of park waters (fresh, marine, and estuarine) meet or exceed designated use standards, while supporting the rare, threatened and endangered species and diverse native life unique to the region.
2. Hydrologic (water quantity) integrity of park fresh waters (surface and ground waters) supports natural geomorphic processes of fluvial and aquifer systems, providing quality aquatic habitat for rare, threatened, and endangered species and diverse native life unique to the region.

3. Natural shoreline physical processes (such as erosion, deposition, and shoreline migration) are maintained along most of the coastline of GOGA, supporting the rare, threatened and endangered species and diverse native life unique to the region.