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## Saguaro National Park Case Study

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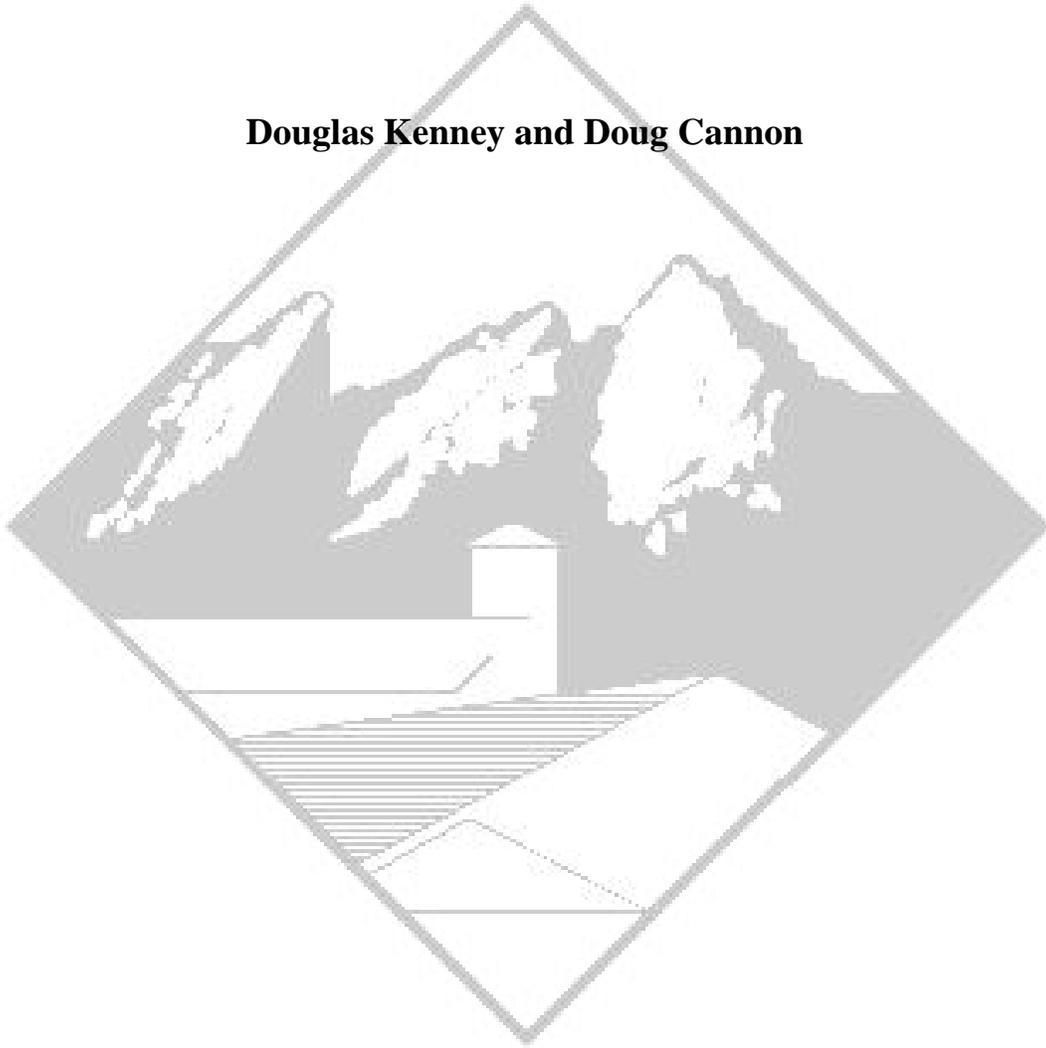
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# **SAGUARO NATIONAL PARK CASE STUDY**

**Douglas Kenney and Doug Cannon**



**Natural Resources Law Center  
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## PART A: ESTABLISHMENT AND LEGISLATIVE HISTORY

Saguaro National Park was first protected as a national monument on March 1<sup>st</sup>, 1933.<sup>1</sup> President Hoover exercised his Antiquities Act authority noting the “outstanding scientific interest” in the area because of the “exceptional growth thereon of various species of cacti, including the so-called giant cactus.”<sup>2</sup> Today the national park comprises over 91,000 acres in two distinct units.<sup>3</sup> One unit is located about 16 miles east of downtown Tucson, Arizona (the East Unit or the Rincon Mountain Unit). The second unit is about 10 miles northwest of downtown Tucson (the Tucson Mountain Unit). The National Park aims to protect the unique Sonoran Desert ecosystem and is specifically aimed at protecting the dense stands of giant Saguaro Cactus that grow to over 50 feet tall and weigh as much as 10 tons.<sup>4</sup> The Forest Service initially managed the area,<sup>5</sup> but after just thirteen weeks of management it was transferred to the Department of the Interior and the National Park Service (NPS).<sup>6</sup>



<sup>1</sup> Proclamation No. 2032, 47 Stat. 2557 (Mar. 1, 1933).

<sup>2</sup> *Id.*

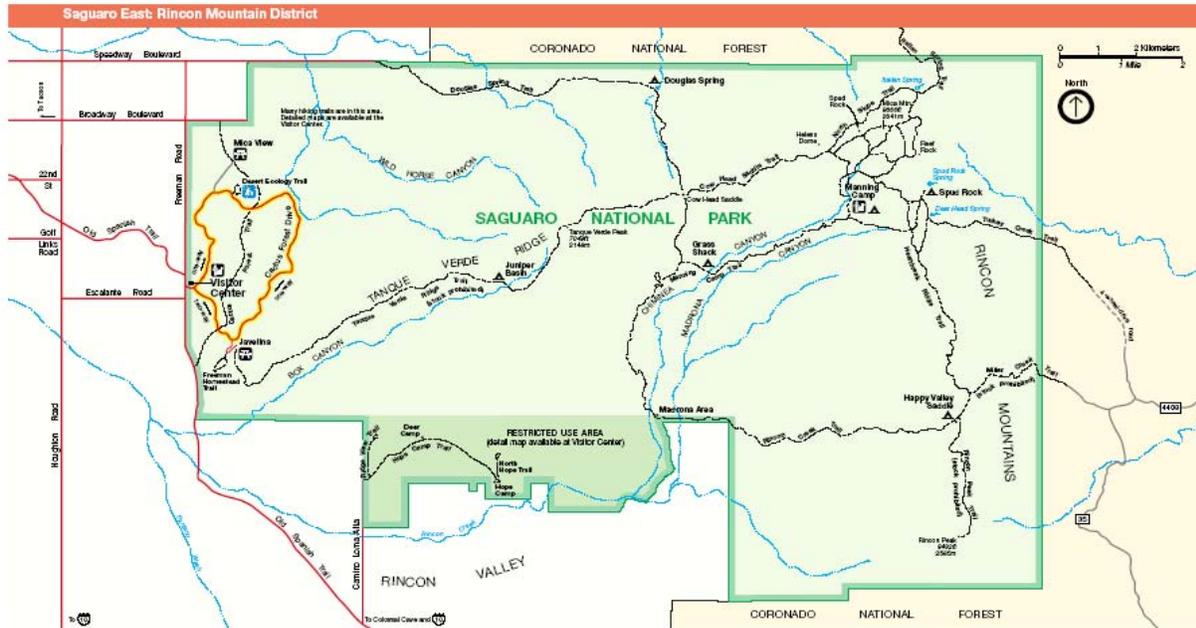
<sup>3</sup> <http://www.nps.gov/sagu/pphtml/facts.html>, (July 10, 2003).

<sup>4</sup> <http://www.nps.gov/sagu/index.htm>, (July 10, 2003).

<sup>5</sup> A. Berle Clemensen, National Park Service, *Cattle, Copper, and Cactus The History of the Saguaro National Monument*, 120-140 (Jan. 1987). (hereafter “Clemensen”). For an outstanding look at the natural environment of Saguaro National Park see Napier Shelton, *Saguaro National Monument*, National Park Service, (1972).

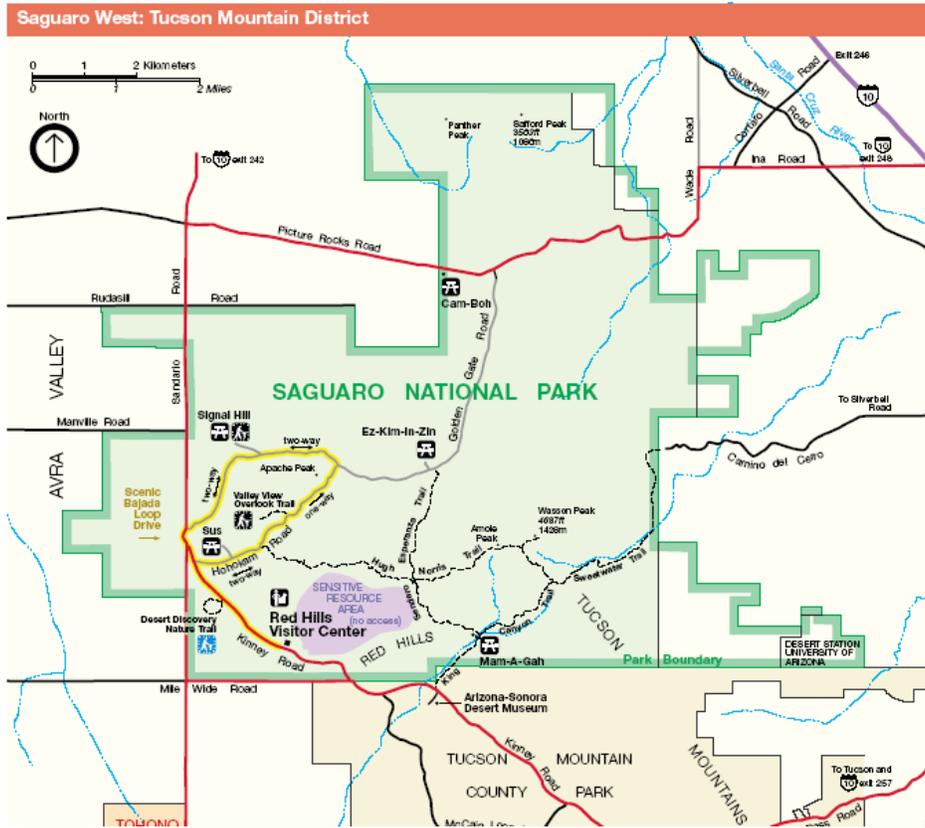
<sup>6</sup> *Id.*; see also Exec.Order No. 6166, (June 10, 1933).

**Figure 1. Rincon Mountain Unit**



-  Private property within parkland (no public access)
-  Scenic loop drive
-  Unpaved road
-  Trail
-  Intermittent spring
-  Ranger station
-  Picnic area
-  Self-guiding trail
-  Wheelchair accessible self-guiding trail
-  Campground
-  Backcountry campsite

Figure 2. Tucson Mountain Unit



- |   |   |   |  |
|---|---|---|--|
|  | Private property within parkland (no public access) |  | Ranger station                           |
|  | Scenic loop drive                                   |  | Picnic area                              |
|  | Unpaved road  |  | Self-guiding trail                       |
|  | Trail   |  | Wheelchair accessible self-guiding trail |
|  | Intermittent spring                                 |  | Campground                               |
|   |   |  | Backcountry campsite                     |

## Origins of the Rincon Mountain Unit

Before going into a discussion on the statutory directives that guide the management of Saguaro it is important to understand how the park came about. The first step to preserving the unique desert environment of Saguaro occurred in 1932. President Hoover in August of 1932 removed a portion of the Saguaro area from “settlement, location, sale, or entry” so that it could be used for construction of the University of Arizona.<sup>7</sup> Although this was not an action that was specifically carried out to preserve the land it had the effect of removing the land from possible disposition under the homesteading and mining laws then in effect. Then in 1933 President Hoover was convinced to create the Saguaro National Monument.<sup>8</sup> The proclamation signed by President Hoover reserved the land from all forms of appropriation under the public land laws of the United States. The only exception being the University of Arizona retained the land it had been granted in the earlier proclamation.<sup>9</sup> The monument was initially comprised of about 63,300 acres.<sup>10</sup> The actual monument area contained very few Saguaro Cacti. The cacti were actually located on state land, University of Arizona land, and private land within the monument area. Although the preservation of the cacti was not the only purpose of the monument, it was the purpose that was always referred to. The National Park Service soon recognized the need to acquire the non-federally held lands within the monument on which the cacti resided in order to have the land it needed to really fulfill the purposes of the monument.

The struggle to acquire the lands began in 1935 with a request from the Department of Interior to the University of Arizona that the University donate the lands to the government.<sup>11</sup> The University responded that it was willing to sell the lands, but no donation would occur.<sup>12</sup> Interior did not have the funds to purchase the land and this initial attempt failed. Some within the NPS looked at this as the demise of the monument.<sup>13</sup> Many additional attempts were made between 1935 and 1937 to work out some agreement to get the university and state inholdings

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<sup>7</sup> Exec.Order No. 5898, (Aug. 2, 1932).

<sup>8</sup> Proclamation No. 2032, 47 Stat. 2557 (March 1, 1933).

<sup>9</sup> *Id.*

<sup>10</sup> Clemensen at 131.

<sup>11</sup> *Id.* at 124.

<sup>12</sup> *Id.*

<sup>13</sup> *Id.*

within the monument but none of the propositions came to fruition.<sup>14</sup> With frustration mounting for all sides Senator Carl Hayden (AZ-D) proposed S. 2648 which authorized \$95,000 to purchase the university and other private inholdings.<sup>15</sup> In addition, the bill contained provisions that would have reduced the size of the monument from the original 63,300 acre to about 13,100 acres, the remainder of the land would be returned to the Forest Service.<sup>16</sup> This bill was supported by local cattle ranchers who were very concerned about the loss of grazing leases in the more mountainous grassland areas of the monument.<sup>17</sup> In addition, the bill had the support of Mr. Larry Winn, the local forest supervisor, and Mr. Frank Pinkley, director of Southwest Monuments for the NPS, who felt the more mountainous portions of the monument were not deserving of designation and the only area that should be protected is the cactus stands.<sup>18</sup> Mr. Cammerer, Director of the NPS at the time, opposed the bill and felt the entire area was needed in order to protect this unique desert environment, he saw the monument as more than just cacti.<sup>19</sup> Eventually the Department of the Interior also came out in opposition to the bill.<sup>20</sup> Ultimately the bill failed due to the fact that the Bureau of Budget disapproved of the bill on the basis that the land acquisition costs were too high.<sup>21</sup>

Senator Hayden did not give up. In 1939 he proposed S.7 which would reduce the size of the monument to about 10,900 acres and would pay \$25 an acre for private land in the reduced monument area and would give the university about \$55,000 for its land in the new monument area.<sup>22</sup> This bill was eventually passed by the Senate, but the bill was never taken up by the House and it died at the conclusion of that term of Congress.<sup>23</sup> This bill once again failed to gain the support of the NPS or the Department of Interior.<sup>24</sup> The bill found its main ally in the ranchers in the area.<sup>25</sup>

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<sup>14</sup> *Id.* at 124-131.

<sup>15</sup> *Id.* at 131; 81 Cong. Rec. 11, 669 (1937).

<sup>16</sup> *Id.*

<sup>17</sup> *Id.* at 120, 131.

<sup>18</sup> *Id.* at 121, 131.

<sup>19</sup> *Id.* at 131.

<sup>20</sup> *Id.*

<sup>21</sup> *Id.* at 132; 81 Cong. Rec. 11, 669 (1937).

<sup>22</sup> *Id.* at 133; 84 Cong. Rec. 15, 633 (1939).

<sup>23</sup> *Id.* at 133-134.

<sup>24</sup> *Id.*

<sup>25</sup> *Id.* at 133.

Senator Hayden's closest attempt came in 1941 with S. 394.<sup>26</sup> In substance the bill was the same as his previous bill, S.7.<sup>27</sup> This time he mustered support from the President of the University of Arizona, the President of the Tucson Chamber of Commerce, The local forest supervisor, and the local ranchers.<sup>28</sup> Once again the Department of Interior and the NPS stood in opposition to the bill citing the fact that the monument "was meant to preserve not only the cactus but those portions of the Rincon-Tanque Verde Mountains watersheds which are largely responsible for the favorable conditions that have produced the extraordinary stands of saguaro found in the area."<sup>29</sup> The bill once again passed the Senate but died after it was referred to the House Committee on Public Lands.<sup>30</sup>

Senator Hayden made two more attempts to get legislation passed that would reduce the size of Saguaro National Monument and would allow the nonfederal inholdings to be purchased. In 1943 he introduced S.379<sup>31</sup> and in 1945 he proposed S.68.<sup>32</sup> Both of these bills also failed.<sup>33</sup>

With the failure of legislative attempts to acquire the inholdings the NPS once again sat down with the University and the State of Arizona to try and come up with a negotiated settlement to the situation.<sup>34</sup> At the end of negotiations the University and the state agreed to land exchanges instead of out right land purchases which the NPS was having a hard time getting funding for.<sup>35</sup> The exchanges, involving federal lands elsewhere in the state, began to occur in 1950 and were finally completed in 1959.<sup>36</sup>

As for the private land the NPS received permission to buy three tracts of private land which were acquired by 1951.<sup>37</sup> One of the three tracts was purchased from the Tucson Chamber of Commerce and was actually outside the original designation but it was needed because it was the only source of water in the immediate vicinity.<sup>38</sup> The purchase of the remaining private land,

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<sup>26</sup> *Id.* at 134; 87 Cong. Rec. 15, 718 (1941).

<sup>27</sup> *Id.*

<sup>28</sup> *Id.*

<sup>29</sup> *Id.*

<sup>30</sup> *Id.*

<sup>31</sup> *Id.* at 134-135; 89 Cong. Rec. 13, 643 (1943).

<sup>32</sup> *Id.*; 91 Cong. Rec. 14, 752 (1945).

<sup>33</sup> *Id.* at 135; see notes 31 and 32.

<sup>34</sup> *Id.* at 136-137.

<sup>35</sup> *Id.* at 138-139.

<sup>36</sup> *Id.* at 139-140.

<sup>37</sup> *Id.*

<sup>38</sup> *Id.* at 140.

except 775 acres, was accomplished by 1972.<sup>39</sup> The 775 acres that the government had not reached agreement on was statutorily removed from the monument in 1976.<sup>40</sup>

## **Origins of the Tucson Mountain Unit**

The above history only applies to the Rincon Mountain (East) Unit of Saguaro National Park. The Northwestern unit (Tucson Mountain Unit) also has a colorful history. In the 1920's the Tucson Game Protective Association began to see encroaching homesteads in the mountains northwest of Tucson's as a threat to wild lands and began efforts to preserve some land for enjoyment.<sup>41</sup> In 1929 the group was successful in getting the Department of Interior to issue a Recreational Withdrawal Order which removed 29,988 acres from entry by homesteaders or miners.<sup>42</sup> Pima County, Arizona then obtained a lease on 15,787 acres of these lands for use as a mountain park. A year later the county was able to lease the rest of the land.<sup>43</sup> In 1932 the formal opening of the Tucson Mountain Recreation Area occurred. In 1959 the Department of the Interior issued Public Land Order 1963 which would have returned 7,600 acres to mining entry.<sup>44</sup> The announcement was met with loud protests from many of the locals. At public hearings on the issue Representative Stewart Udall (AZ-D) told the residents he would present legislation in the next session to make this northwestern area part of the Saguaro National Monument.<sup>45</sup> Due to the loud protests the order never went into affect.

Representative Udall did not forget the promise he had made and when he got back to Washington D.C. he proposed H.R. 9521. This bill would have transferred all of the land currently leased to Pima County to the Saguaro National Monument.<sup>46</sup> This bill never got out of committee.<sup>47</sup> The very next year he proposed H.R. 1103 which also never got out of committee.<sup>48</sup> Senator Barry Goldwater (AZ-R) also got involved in the process and proposed S.

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<sup>39</sup> *Id.*

<sup>40</sup> *Id.*

<sup>41</sup> *Id.* at 140-141.

<sup>42</sup> *Id.* at 141.

<sup>43</sup> *Id.*

<sup>44</sup> *Id.*

<sup>45</sup> *Id.* at 142.

<sup>46</sup> *Id.*; 106 Cong. Rec. 15, 800 (1960).

<sup>47</sup> *Id.*

<sup>48</sup> *Id.* at 1109.

827 which would have simply transferred ownership of the entire mountain park to Pima County, that way the Department of Interior would no longer control disposition of the land.<sup>49</sup>

Just a few months later Representative Morris Udall (AZ-D), who replaced his brother who had become Secretary of Interior, proposed H.R. 8365 which would have attached 15,360 acres of the mountain park to the Saguaro National Monument.<sup>50</sup> This same bill was presented in the Senate by Senator Hayden who apparently had had a change of heart to his previous efforts to shrink the monument.<sup>51</sup>

Before any action could be taken on any of these bills Stewart Udall the new Secretary of the Interior convinced President Kennedy to transfer the land to the Saguaro National Monument by Presidential Proclamation.<sup>52</sup> On Nov. 15, 1961 President Kennedy issued Presidential Proclamation 3439 which enlarged the Saguaro National Monument by 15,360 acres through the addition of the Tucson Mountain Unit.<sup>53</sup>

## **Wilderness Designation**

In 1975 the first efforts to designate wilderness in the Saguaro National Monument were undertaken. Two bills were presented during this session of Congress. The first, H.R. 3185, was proposed by Representative Morris Udall.<sup>54</sup> This bill called for the creation of about 71,000 acres of wilderness in the national monument.<sup>55</sup> In addition the bill called for a study by the Forest Service into possible wilderness on Forest Service lands adjacent to the monument.<sup>56</sup> This bill was opposed by both the Department of Interior and the Department of Agriculture on the grounds that it was a piece meal approach to wilderness designation and ignored the fact that wilderness study had been conducted in that area in 1973 and no wilderness study areas had been designated.<sup>57</sup> After being referred to committee the bill died.<sup>58</sup>

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<sup>49</sup> *Id.* at 1018.

<sup>50</sup> *Id.* at 1291.

<sup>51</sup> *Id.*

<sup>52</sup> *Id.*

<sup>53</sup> *Id.*; Proclamation No. 3439, (Nov. 15, 1961).

<sup>54</sup> 121 Cong. Rec. 33, 1833 (1975).

<sup>55</sup> H.R. Rept. No. 94-1427, 23, (Aug. 13, 1976).

<sup>56</sup> *Id.*

<sup>57</sup> *Id.* at 21-24.

<sup>58</sup> 121 Cong. Rec. 33 at 1833.

The second bill, H.R. 7200, was proposed by Representative Keith Sebelius (KS-R).<sup>59</sup> This bill would have designated 42,400 acres of wilderness in the monument, the amount of wilderness the President had suggested in his 1973 report to Congress.<sup>60</sup> In addition the bill provided for 27,100 acres of potential wilderness, but due to then existing grazing and mining operations these lands did not qualify as wilderness.<sup>61</sup> This bill also allowed a couple of non-conforming uses to occur within the wilderness area. First, the bill allowed the use of manipulative techniques to maintain or restore natural ecological conditions within the wilderness area.<sup>62</sup> Second, the bill allowed the use and maintenance of fire towers and radio repeaters to be used in protection of the area.<sup>63</sup> This bill received the support of both the Department of Interior and the Department of Agriculture.<sup>64</sup> But in the end this bill was sent to committee and died.<sup>65</sup>

In 1976 Representative Roy Taylor (NC-D) proposed H.R. 13713.<sup>66</sup> This bill authorized an increase in the appropriations ceiling and proposed boundary adjustments in a number of units managed by the NPS.<sup>67</sup> One of the changes involved in the bill was an expansion to the Saguaro National Monument.<sup>68</sup> The bill eventually passed leading to the expansion of the Tucson Mountain Unit by about 5,378 acres. This expansion was needed to provide protection to the eastern and north boundaries of the unit.<sup>69</sup> In addition the Senate version of the bill slightly adjusted the eastern (Rincon) units boundary through the deletion of 775 acres of private inholdings from the area that were so developed as to make acquisition unjustified, but the House version did not include this provision and when the final bill was agreed upon this provision was left out.<sup>70</sup> No insights are included in the reports as to why this agreement was reached. One

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<sup>59</sup> *Id.* at 1976.

<sup>60</sup> H.R. Rept. No. 94-1427 at 21-22.

<sup>61</sup> *Id.* at 22.

<sup>62</sup> *Id.*

<sup>63</sup> *Id.*

<sup>64</sup> *Id.* at 21-24.

<sup>65</sup> 121 Cong. Rec. 33 at 1976.

<sup>66</sup> 122 Cong. Rec. 28, 1367 (1976).

<sup>67</sup> Pub. L. No. 94-578, (Oct. 21, 1976).

<sup>68</sup> *Id.* at sec. 307(a).

<sup>69</sup> *Id.*; 2 Cong. Rec. 28 at 1367; Clemensen at 142-143.

<sup>70</sup> S. Rept. No. 94-1158, 12, 15, (Aug. 20, 1976); H.R. Rept. No. 94-1162, 1, 6, 8, (May 15, 1976).

other provision of the act directed that the area, from that point on, was to be administered in accordance with the organic legislation of the NPS.<sup>71</sup>

In 1976 Senator Haskell (CO-D) introduced S. 1095, a bill to designate 42,400 acres within the national monument as wilderness and classify another 27,100 acres as wilderness reserve which would become wilderness when currently existing nonwilderness uses ceased.<sup>72</sup> 19,500 acres of this land would become wilderness when the grazing allotments expired and the rest would become wilderness after existing mining claims were invalidated or the existing mines were made safe for the public.<sup>73</sup> During committee hearings no real opposition was voiced, though in a letter submitted by Representative Morris Udall he did refer to opposition from the Forest Service because the agency felt the area was too close to the city of Tucson to be wilderness.<sup>74</sup> The main supporter of the bill was Representative Morris Udall. He spoke out in favor of the bill although it did differ somewhat from his earlier proposal.<sup>75</sup> The Wilderness Society was the only other party to speak directly to the Saguaro designation and they were also in favor of the bill.<sup>76</sup>

Before any action could be taken on this bill another wilderness bill was presented in the House. H.R. 13160, sponsored by Representative Taylor, was a general wilderness act to designate lands managed by the NPS as wilderness, including portions of Saguaro National Monument.<sup>77</sup> The bill was actually very similar to H.R. 3185 that had been proposed just a year before. This bill directed that 71,400 acres of the total 78,917 acres in the monument be designated as wilderness.<sup>78</sup> In addition the bill required the Forest Service to conduct a wilderness inventory in the Coronado National Forest located adjacent to the monument and to report its findings back to Congress, through the President, within two years.<sup>79</sup> The bill failed to provide any additional guidance on how the new wilderness areas should be managed. The bill simply stated “the areas designated by this act shall be administered by the Secretary of the

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<sup>71</sup>*Id.*; Pub. L. No. 94-578 sec. 307(a), (Oct. 21, 1976); The NPS organic legislation can be found at 16 U.S.C.A § 1 (2003).

<sup>72</sup> SubComm. on Parks and Recreation of the Comm. on Int. and Insular Affairs United States Senate, *Hearings on S.1075, S.1084, S.1089, S.1095, S.3078*, 8-10,16, (Sept. 20, 1976).

<sup>73</sup> *Id.* at 37.

<sup>74</sup> *Id.* at 62.

<sup>75</sup> *Id.* at 60-62.

<sup>76</sup> *Id.* at 52-55.

<sup>77</sup> 122 Cong. Rec. 28 at 1345; H.R. Rept. No. 94-1427 (Aug. 13, 1976).

<sup>78</sup> Sen. Rept. No. 94-1357, 7, (Sept. 29, 1976).

<sup>79</sup> *Id.* at 10.

Interior in accordance with the applicable provisions of the Wilderness Act. . . .<sup>80</sup> The hearings held on S. 1095 were relied upon for passage of this bill, so no additional hearings were held.<sup>81</sup> This bill was eventually passed by the House and Senate and was signed by the President<sup>82</sup> despite strong opposition from both the Department of Interior and Agriculture. After the passage of this bill things were quiet for Saguaro for a number of years.

## **Recent Developments: Further Expansion and National Park Status**

In 1990 attention once again turned to Saguaro. Through the 1980's the city of Tucson continued to grow and the outskirts of town soon began to encroach upon the boundaries of the monument. In order to help protect the monument from encroachment Representative James Kolbe (AZ-R) proposed H.R.5675.<sup>83</sup> This bill would expand the southern boundary of the Rincon Unit, where the heaviest encroachment was occurring, by about 3,540 acres.<sup>84</sup>

In 1991 efforts were once again made to expand the monuments boundaries. This time Senator John McCain (AZ-R) proposed S. 292 that would expand the boundaries of the monument.<sup>85</sup> This bill once again cited the threat of encroachment as the basis for the need for expansion. At the time the monument was created in 1933 the population in the Tucson area was 35,000 in 1991 it was over 675,000.<sup>86</sup> This bill proposed the same expansion, 3,540 acres, as H.R. 5675 had the year before.<sup>87</sup> Before the bill was sent to the Senate for a vote hearings were held to see the response from the local community and the affected landowners.<sup>88</sup> The land that was to be the expansion area was all privately held. The huge majority of it was held by the X9 and Rocking K ranches. The managers of both of these ranches were called to comment on this

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<sup>80</sup> Pub. L. No. 94-567, 6, (Oct. 20, 1976).

<sup>81</sup> *Id.* at 8.

<sup>82</sup> 122 Cong. Rec. 28 at 1345, Pub. L. No. 94-567 sec. (1)(j), (5)(a), (Oct. 20,1976).

<sup>83</sup> H.R. Rept. No. 101-834, (Oct.10, 1990).

<sup>84</sup> *Id.*

<sup>85</sup> *Saguaro National Monument Expansion; Morristown National Historic Park Addition; Merced County Land Use; and Lower Merced Wild adn Scenic River: Hearings on S.292, S.363, S.545, S.549, 6-8 Before the Subcomm. on Public Lands, National Parks, and Forests of the Comm. on Energy and Natural Resources, 102nd Congress (March 21, 1991).*

<sup>86</sup> Sen. Rept. No. 102-44,2, (Apr. 23, 1991); H.R. Rep. No. 102-88, (June 3, 1991).

<sup>87</sup> *Id.*

<sup>88</sup> *Saguaro National Monument Expansion; Morristown National Historic Park Addition; Merced County Land Use; and Lower Merced Wild adn Scenic River: Hearings on S.292, S.363, S.545, S.549, 6-8 Before the Subcomm. on Public Lands, National Parks, and Forests of the Comm. on Energy and Natural Resources, 102nd Congress (March 21, 1991).*

expansion. When they commented both of the managers spoke out in favor of the expansion.<sup>89</sup> It came out in the hearing that various conservation groups had been meeting with these ranches since 1990 to try and work out some plan whereby these ranches would not develop the areas adjacent to the monument.<sup>90</sup> All of the parties undertook a voluntary study of the area and all concluded that there was about 3,500 acres of land that should be preserved.<sup>91</sup> When Senator McCain proposed the bill all of the involved parties had already agreed to it. In addition to the support of the ranches and the conservation groups the city of Tucson and the Pima County Board of Supervisors also expressed their support for the bill.<sup>92</sup> With this broad base of support the bill was passed in the Senate and the House and was subsequently signed by the President.<sup>93</sup> It should be noted that one of the reasons this may have worked out so well in this situation is neither of the ranches involved were still working ranches, both were being developed and knew the Department of Interior would have to pay fair market price for any land included in the monument.<sup>94</sup>

In 1994 Senators Dennis DeConcini (AZ-D) and McCain proposed S.316.<sup>95</sup> This bill would have once again expanded the boundaries of Saguaro. The expansion would be a 3,460 acre expansion of the Tucson Mountain Unit.<sup>96</sup> The proposed expansion came about as a result of the publication of an NPS study that found that there were a number of land parcels around the monument that contained valuable resources.<sup>97</sup> The study concluded that the NPS should act now or could lose any future chance at expansion due to the rapid growth in the Tucson area.<sup>98</sup> In addition to the expansion, the bill would also redesignate Saguaro National Monument to a

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<sup>89</sup> *Id.* at 33-36.

<sup>90</sup> *Id.* at 34.

<sup>91</sup> *Id.*

<sup>92</sup> *Id.* at 55.

<sup>93</sup> Cong. Rec. vol.137 pt. 25 pg. 3394 ;see also PUB. L. NO. 102-61, (June 19, 1991)

<sup>94</sup> SubComm. on Public Lands, National Parks, and Forests of the Comm. on Energy and Natural Resources United States Senate, *Hearings on S.292, S.363, S.545, S.549*, 34, 102nd Congress, (March 21, 1991).

<sup>95</sup> *Saguaro National Monument Expansion; Employee Housing; and Everglades National Park Amendments: Hearings on S.316, S.472, S.1631 Before the Subcomm. on Public Lands, National Parks, and Forests of the Comm. on Energy and Natural Resources*, 103rd Congress 3-6 (Nov. 18, 1993).

<sup>96</sup> S. Rept. No. 103-270, 2, (May 25, 1994).

<sup>97</sup> *Id.* at 2-3. The NPS was required to do a boundary study for Saguaro National Monument based on Pub. L. No. 101-668 §1216 and these expansions were based on the findings of that study.

<sup>98</sup> *Id.* at 3.

national park.<sup>99</sup> Hearings were also held in response to this proposed bill.<sup>100</sup> At the hearings information came out that the expansion, originally slated at just 160 acres, came about because an application had been made to the Bureau of Land Management to open up a gold mine in some prime saguaro cacti area adjacent to the monument and the bill was an effort to stop the mine.<sup>101</sup> Then when the NPS study came out the need to expand was more apparent. Further, it was found that the expansion figure needed to be raised to 3,460 acres.<sup>102</sup> During the hearings the only person to speak out in opposition to the expansion and redesignation was Senator Malcom Wallop (WY-R) who questioned creating another national park when the American people have so many other pressing needs.<sup>103</sup> The NPS<sup>104</sup>, the City of Tucson<sup>105</sup>, the Pima County Board of Supervisors<sup>106</sup>, and the International Mountain Bicycling Association<sup>107</sup> all commented in favor of the expansion and the redesignation. This bill was eventually passed by both the Senate and the House and was signed by the President.<sup>108</sup> This created the Saguaro National Park.

## **PART B: MANAGEMENT OF SAGUARO NATIONAL PARK**

### **Introduction and Overview**

According to the park's strategic plan, it is the mission of the Park Service at Saguaro National Park to "preserve, protect, and interpret the Sonoran Desert's many biotic communities, cultural features, and scientific, scenic, and wilderness values."<sup>109</sup> This mission has been carved from a variety of sources:

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<sup>99</sup> *Id.* at 4.

<sup>100</sup> *Saguaro National Monument Expansion; Employee Housing; and Everglades National Park Amendments: Hearings on S.316, S.472, S.1631 Before the Subcomm. on Public Lands, National Parks, and Forests of the Comm. on Energy and Natural Resources, 103rd Congress 3-6 (Nov. 18, 1993).*

<sup>101</sup> *Id.* at 15.

<sup>102</sup> *Id.* at 15-16.

<sup>103</sup> *Id.* at 18-19.

<sup>104</sup> *Id.* at 36-38.

<sup>105</sup> *Id.* at 2.

<sup>106</sup> *Id.*

<sup>107</sup> *Id.* at 88-89.

<sup>108</sup> 140 Cong. Rec. 22, 2100 (1994); Pub. L. No. 103-364 (Oct. 14, 1994).

<sup>109</sup> National Park Service, *FY 2000 to FY 2005 Strategic Plan for Saguaro National Park*, 8, (approved by Frank Walker, Superintendent), (Apr. 14, 2000). (hereafter "*Strategic Plan*")

Our mission is rooted in and grows from the park’s original mandate found in the Presidential Proclamation #2032, March 1, 1933, and supplemented by more recent legislation: Presidential Proclamation #3439 which added the Tucson Mountain District, Public Law 94-567 (Oct 20, 1976) which declared 77,400 acres as wilderness under the Wilderness Act, Public Law 94-578 (Oct 21, 1976) which revised park boundaries, Public Law 102-61 (June 19, 1991) which also enlarged the park, and Public Law 103-364 (Oct 14, 1994) which expanded the boundaries and changed the official name from Saguaro National Monument to Saguaro National Park.<sup>110</sup>

In reality, these Saguaro-specific directives provide very little substantive guidance for Park managers. This is also true of the more general set of laws and principles that pertain to all Park Service units. While the National Park Service dual mandate of preserving resources (to a nonimpairment standard<sup>111</sup>) yet facilitating access is concise and clear, it is widely recognized as being somewhat contradictory in practice.<sup>112</sup> It is the job of resource managers in each unit to devise and implement strategies for achieving these often competing goals.

In the Saguaro, the management philosophy is conceptually quite simple, based on two key elements. First, human activities in the Park are, with very few exceptions, limited to recreation. As discussed below, neither mining nor grazing has occurred in the Park for several decades, as land within the Park has been withdrawn from all forms of mineral entry and leasing, subject to valid existing rights.<sup>113</sup> Secondly, much of the Park is designated and managed as wilderness. Transportation corridors, occupied/operational buildings (e.g., visitor centers), and major points of entry/exit are located in the non-wilderness areas; foot trails and opportunities for primitive recreation are concentrated in wilderness areas. Some exceptions exist to this general description, but they are not very influential in shaping the overall effectiveness of Park management. Much more salient than any “special” or “non conforming” uses is the sheer volume and intensity of the permitted recreational activities, and more generally, the existence of transboundary impacts (e.g., air pollution) on Park resources—problems common to almost all urban Parks.

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<sup>110</sup> *Id.*

<sup>111</sup> 16 U.S.C.A. §1 (2003)

<sup>112</sup> The organic act applies both to monuments and parks, and calls on the National Park Service to “conserve the scenery, the natural and historic objects and the wildlife herein and to provide enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (16 U.S.C. §1-4). Hence, the basic conflict between preservation and access.

<sup>113</sup> 16 U.S.C.A. §410zz-2(c) (2003)

## The Planning Framework

### General Management Plan

The overall strategy for land management and resources protection in Saguaro National Park is described in the General Management Plan, last revised in 1988 while the area was still a National Monument.<sup>114</sup> Issue-specific plans are also developed, as needed, to implement key components of the Management Plan. Additional report and planning documents are also produced to comply with the Government Performance Results Act (GPRA) of 1993.<sup>115</sup> The GPRA espouses a “performance-based management” philosophy, characterized by measurable goals. Just like the other 380+ units in the National Park system, Saguaro National Park has its own 5-year *Strategic Plan*<sup>116</sup>, dovetailed with the “systemwide” plan first issued in 1997. Additionally, managers in each unit prepare an *Annual Performance Plan* to describe one year’s worth of activities to implement the 5-year plan. A companion report—the *Annual Performance Report*—describes the level of progress. These plans provide a more quantified—although still largely cryptic—listing of management goals and progress than is found in the General Management Plan.<sup>117</sup>

The General Management Plan relies upon a zoning system to designate allowed and prohibited activities. Consistent with congressional actions in the 1970s, approximately 78 percent (71,400 of 91,445 acres) of Saguaro National Park is designated as wilderness (as of 2000).<sup>118</sup> Lands in the wilderness subzone (of the “natural” zone) are “managed to minimize human impact while providing opportunities for primitive types of recreation.”<sup>119</sup>

Transition from a national monument to a national park (in 1994) has produced no noticeable change in management philosophy or approach, and was largely a symbolic effort.<sup>120</sup> More substantive changes may be forthcoming, however. In April of 2003, the National Park

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<sup>114</sup> National Park Service, *Saguaro National Monument Final General Management Plan*, 12 (1988). (hereafter “*General Management Plan*”)

<sup>115</sup> Pub. L. No. 103-62; 107 Stat. 285 (1993) (codified in various sections of 5 and 31 U.S.C.).

<sup>116</sup> *Strategic Plan*.

<sup>117</sup> For example, the goal for wilderness is described in the 5-year plan as follows: “By Sep 30, 2005, designated wilderness at [Saguaro National Park] fully meets 7 (70%) of 10 parameters established by the Wilderness act, NPS Management Policies, and the park’s 1992 Wilderness Management Plan” (*Strategic Plan*, at 17). As of 2003, 6 of 10 parameters have been achieved.

<sup>118</sup> *Strategic Plan* at 7.

<sup>119</sup> *General Management Plan* at 12.

<sup>120</sup> Karen Ann Winters, *The Consequences of Location: External Threats to the Saguaro National Park*, Tempe: Arizona State University; 66 (1997). (hereafter “Winters”).

Service issued a notice to prepare an Environmental Impact Statement for a new general management plan. In July, this effort went public with “open houses” to gauge citizen preferences.<sup>121</sup>

#### Insights from the 1988 Revision of the General Management Plan

As part of the 1988 revision of the General Management Plan, 4 management alternatives were considered, providing different blends of recreational opportunities. These options ranged from a pro-wilderness alternative in which “almost all roads and facilities would be removed from the core areas of both districts, and extensive trail systems would provide the only means of access into their interiors,”<sup>122</sup> to schemes emphasizing “drive-through” visitation—so-called windshield tourists. The draft environmental assessment describing these options was distributed widely in 1987 to approximately 1,000 individuals, organizations and agencies; was the subject of 14 special briefings and 2 public hearings; and generated 160 written comments.<sup>123</sup>

The selected (preferred) alternative is a blend of the 4 studied options, emphasizing mixed opportunities for touring (by car), hiking, bicycling, horseback riding, and similar activities. The plan describes a \$7 million development program focusing mostly on trail rehabilitation and expansion, and road modifications (including rerouting and closing of some roads); overall, the emphasis is on improving and “correcting” existing facilities rather than on expansion.<sup>124</sup> The major difference between the adopted plan and the pro-wilderness alternative is the retention of Cactus Forest Drive in the Rincon Mountain Unit and the Baja Loop Drive in the Tucson Mountain Unit as paved roads for automotive touring, rather than downgrading these corridors to trails.<sup>125</sup> Additionally, the pro-wilderness alternative called for slightly less new land disturbances and slightly more land restoration.

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<sup>121</sup> Scott Simonson, *Saguaro Park Open Houses To Focus On Future Plans*, The Arizona Daily Star, B3 (July 21, 2003).

<sup>122</sup> National Park Service, *Environmental Assessment: General Management Plan: Saguaro National Monument (draft)*, 35 (1987) (hereafter “*Environmental Assessment*”).

<sup>123</sup> *General Management Plan*, at 1.

<sup>124</sup> *Id.* at 24-26.

<sup>125</sup> *Environmental Assessment*.

## **Management Issues Solved (or Largely Avoided) in Saguaro National Park**

A long list of management issues exist for Saguaro National Park (as discussed later). However, a few key resource issues are notable by their absence. These include mining, grazing, and surface water development.

### Mining

Southeastern Arizona has a rich history of mining, particularly for copper. However, the area comprised by the Rincon Mountain Unit—the original component of the monument (now park)—has never been actively mined.<sup>126</sup> Some prospecting occurred prior to monument designation, but no production occurred. Much more mining activity was found in and around the Tucson Mountain Unit.<sup>127</sup> Numerous mining claims were made in this region, and 149 “earth disturbances” have been recorded. However, only 2 are of any significance: the Gould and Mile Wide were the only producing mines. The Gould mine produced 45,000 pounds of copper before ceasing operation in 1911 and officially closing in 1954. The Mile Wide mines produced about 70,000 pounds of copper mostly in the 1920s and 1930s, and ceased operations in 1943. In both cases, termination of mining is attributable to economic factors more so than any management initiatives. As mentioned earlier in the legislative history, a threat of renewed mining in the Tucson Mountains prompted the establishment of the Tucson Mountain Unit in 1961. Some mining persists in adjacent Bureau of Land Management properties comprising 18 percent of the Tucson Mountain Unit border.<sup>128</sup>

### Grazing

What the Rincon Mountain Unit lacked in mining, it made up for in grazing.<sup>129</sup> Much of the original monument was carved from National Forest lands where grazing allotments were already in effect. These activities could be traced to about 1870. When the National Park Service assumed management over the region soon after the monument was established, the agency decided to honor existing grazing allotments, and continued to rely upon the Forest Service to administer the permit system. Originally, about 520 head grazed within the monument on former National Forest lands. These cattle were concentrated on three ranches

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<sup>126</sup> See Clemensen for a detailed history of mining and grazing in the monument.

<sup>127</sup> *Id.* at 209-211.

<sup>128</sup> Winters at 66.

<sup>129</sup> Clemensen at 67-79.

spread across four active allotments; two additional allotments were not in use. Beginning in the 1940s, the Forest Service, at the urging of the Park Service, began reducing AUMs on allotments every time a ranch changed ownership. Additionally, land consolidations (mostly in 1956) helped eliminate state lands and University of Arizona lands in the monument area where grazing occurred. A variety of grazing rotation strategies were also applied in these years to reduce grazing impacts. By the 1970s, most remaining permit holders voluntarily relinquished their permits, and in 1973, the Forest Service ended its practice of administering permits in the area on behalf of the Park Service. The Park Service took that announcement as an opportunity to eliminate all grazing. One rancher brought suit against the Park Service, delaying the end of grazing until 1979. Feral cattle continued to persist on the monument until completely removed in 1985.

The Tucson Mountain Unit never had much grazing, as it is at a lower, and much drier, elevation.

### Surface Water Development

Surface water resources in this region of southern Arizona are few and far between. Most streams are ephemeral, in part due to natural aridity, and in part due to groundwater pumping and depletion that, essentially, drains rivers from below. The most prominent example of this latter phenomenon is the Santa Cruz River, the region's major surface water resource which runs through Tucson and between the two units of Saguaro National Park. The Santa Cruz has been home to communities based on irrigated agriculture for at least 2,000 years, and was a critical resource in the late 1800s as Tucson emerged as Arizona's most important city. The Santa Cruz was also a critical resource for an abundance of trout, beavers, cottonwoods, mesquite, willows, sycamores, paloverde, and high grass hiding many wild turkeys.<sup>130</sup> By the 1940s, however, municipal growth, fueled largely by the development of a system of deep wells, had dropped the water table by more than 200 feet, turning the Santa Cruz River into an ephemeral stream flowing only during floods—a situation that continues today—and supporting only the hardiest of mesquite, desert shrubs and cacti sprinkled across largely bare ground. This problem is hardly confined to the Tucson Active Management Area (AMA), an administrative unit that includes

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<sup>130</sup> David Sheridan, "The Desert Blooms—At a Price." *In: Perspectives on Water: Uses and Abuses*, 251-271 (David H. Speidel, Lon C. Ruedisili, and Allen F. Agnew eds., New York: Oxford University Press 1988).

Saguaro National Park; statewide, this loss of riparian areas is typically estimated at over 90 percent.<sup>131</sup>

The primary “solution” to groundwater depletion in the region has been the construction of the Central Arizona Project (CAP) aqueduct, which brings Colorado River flows across the state for municipal and agricultural purposes, and as a means of resolving many longstanding tribal water rights disputes.<sup>132</sup> The CAP neither takes nor provides water to biota in the Saguaro National Park, however, the canal runs parallel to the western boundary of the Tucson Mountain Unit, and may affect wildlife migration corridors. The ultimate goal of AMA management is to stabilize groundwater levels by 2025, an ambitious goal that offers little promise for restoring streams and springs already lost.

Within the park itself, the only examples of water development are small check-dams built by the Civilian Conservation Corps from 1933-1941.<sup>133</sup> Specifically, the Tucson Mountain Unit contains 13 such structures: 6 earth-filled dams in lower elevations to control floods and provide water for wildlife, 6 masonry dams in canyons and arroyos for erosion control and for wildlife, and a rock dam.<sup>134</sup>

### **Modern Management Regime: Issues and Impacts**

Saguaro National Park faces many unique challenges due to its proximity to one of Americas fastest growing urban areas.<sup>135</sup> When Saguaro National Monument was created many of the current conflicts were not foreseeable. Like many urban parks, the greatest stresses on park resources do not come from “internal” threats from activities such as mining, grazing, timber harvesting, and water development, but are imposed externally through borderland development, recreation pressures (inside and outside the park), and transboundary impacts such as air pollution.<sup>136</sup> Several of the most important issues are discussed below.

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<sup>131</sup> Data provided by the Arizona Riparian Council, Arizona State University ([www.asu.edu/ces/ARC/arc.htm](http://www.asu.edu/ces/ARC/arc.htm)).

<sup>132</sup> <http://www.water.az.gov/WaterManagement/Content/AMAs/TucsonAMA/default.htm>

<sup>133</sup> Clemensen, page 217.

<sup>134</sup> *Id.* at 225.

<sup>135</sup> For a discussion on why Tucson is such a great place to live see, Teya Vitu, *For The Second Time In A Week The Old Pueblo Has Earned A Top Rating In Livability*, *The Tucson Citizen*, 1B, (August 2, 2003).

<sup>136</sup> Winters.

### Coordination with Neighboring Lands and Landowners

As acknowledged in the General Management Plan: ““It is impossible to plan or manage the monument in isolation, and ties with adjacent land managers and city and county planning entities guiding private land use and development along monument boundaries are essential.”<sup>137</sup> In fact, a central element of the 1988 plan is the establishment of a Tucson Basin Interagency Land Managers Forum.<sup>138</sup>

### Other Public Lands

The Saguaro National Park is adjacent to a variety of other public (federal, state, and county) lands that are managed, in various ways, for resource protection, recreation, and related public uses. These adjacent lands help provide a buffer between the Park and the metropolitan area, and there is a recent history of interagency coordination to manage this network of public lands in a coordinated fashion, with the strongest resource protections being afforded the wilderness component of the National Park. These actions reflect a longstanding management strategy of the Park Service<sup>139</sup>, traced back to seminal reports in the late 1960s, and articulated in National Park Service policies directing managers to be attuned to “peripheral use and development proposals,” and to “encourage joint and regional planning among public agencies, organizations, and individuals having responsibility for maintaining the quality and esthetics of the environment surrounding natural areas.”<sup>140</sup>

Approximately 58 percent of the Rincon Mountain Unit border is Coronado National Forest; the remaining 42 percent is private lands subject to Pima County regulation.<sup>141</sup> The National Forest lands are designated as wilderness and primitive areas, and share a recreational trail system with the National Park lands. The Tucson Mountain Unit boundary is split among many landowners and managers: 66 percent is held by private landowners (subject to Pima County regulation), 18 percent is Bureau of Land Management (BLM) property, 8 percent is the Tucson Mountain Park (managed by Pima County), and 8 percent is held by the Arizona State Land Department. The BLM and Arizona State Land Department lands include grazing. The

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<sup>137</sup> *General Management Plan* at 2.

<sup>138</sup> *Id.* at 9.

<sup>139</sup> See Winters for a discussion of this history.

<sup>140</sup> “Administrative Policies for Recreational Areas,” National Park Service, Washington, D.C., page 20.

<sup>141</sup> These statistics are from Winters, at 57 et seq.

BLM lands also include mining, as well as BLM's regional office. The state lands are managed to generate revenues for schools, and are prime targets for development.

### Private Inholdings

A somewhat related issue involves private land ownership. When Congress expanded the boundaries of Saguaro National Park in 1994, this included 1,800 acres of private land.<sup>142</sup> Between 1994 and 1998 eight homes were built within the Park and developers had plans for building homes on four other large parcels.<sup>143</sup> Faced with the proposition of more homes being built within the Park the National Park Service began to more earnestly seek solutions to the private land problem. In April of 1998 the park was able to carry out a 632-acre land swap with one of the developers that planned to build in the Park.<sup>144</sup> In December of 1998 Congress approved \$5 million for land purchases. This allowed the National Park Service to buy an additional 540 acres.<sup>145</sup> It should be noted that even before the expansion by Congress in 1994 there were private lands issues in Saguaro and land swaps and trades have been occurring for years to try and remedy the situation. One of the biggest points of conflict is the fact that people think the developers that own the land within the park are using the land as a point of leverage and are trying to profit at the public's expense when seeking to sell or trade the land with the federal government.<sup>146</sup>

### Private Lands Outside the Park

Another issue that is related to private land and the Park is the interaction between private landholders that border the Park and Park management activities.<sup>147</sup> In recent years the National Park Service proposed to expand facilities at the end of Broadway (a major Tucson road that

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<sup>142</sup> *Park Gets Unexpected Break*, Associated Press, (December 23, 1998).

<sup>143</sup> *Id.*

<sup>144</sup> *Id.*

<sup>145</sup> *Id.*

<sup>146</sup> See Garry Duffy, *Ecologists Wary Of Former 'Green' Interior Secretary*, *The Tucson Citizen*, 1A, (March 13, 2003). This article gives one example of a sale where some people are concerned about developer profits.

<sup>147</sup> For other discussions surrounding impacts of urban encroachment on Saguaro National Park see: John Kenney, *Beyond Park Boundaries*, 66 *National Parks* 20, (Jul/Aug 1991) (discusses various external threats to Saguaro National Park); Joyesha Chesnick, *When Man Evicts Beast*, *The Tucson Citizen*, 1A, (April 21, 2003) (discusses impacts on wildlife due to the Park being located so closely to an urban area); and Mitch Tobin, *Scientists Fear They're Losing Habitat In Tucson Mountain*, *The Arizona Daily Star*, A1, (Feb. 15, 2003) (discusses the impacts of urban expansion on wildlife and the new invasion of noxious weed species).

ends at the Park boundary). A number of locals that live on the Park border in the proposed improvement area fought the proposal so energetically that the National Park Service has backed down from the proposal currently and is looking at other alternatives to the facilities expansion.<sup>148</sup> In other areas of the Park the bordering residents have opposed the building and expansion of trailheads and other improvements to the trails. The locals often view the smaller trails in the Park, especially those that border their private land, as their own little space in the park and they oppose any changes to the trail system that may mean an increase in people on the trails.<sup>149</sup> Ms. Duffy of the Friends of Saguaro National Park believes that, in general, National Park Service personnel try to work with the local community and landowners but sometimes conflicts occur because bordering landowners see better opportunities for visitors as a lost opportunity for them.<sup>150</sup> She further thought these conflicts create federal resentment and foster an attitude among the bordering land owners that the federal government is trying to take over how the locals live.<sup>151</sup>

## **Recreation Pressures and Transboundary Impacts**

### Just Passing Through: Impacts from Commuters and Airplanes

Visitation statistics reflect the urban nature of Saguaro National Park. In 2002, the park had a total of approximately 3.43 million visitors, of which 615,044 were considered “recreational.”<sup>152</sup> The remainder—2.82 million—are largely commuters, concentrated on important regional access roads such as Picture Rocks Road in the Rincon Mountain Unit. Additional “commuters” invade the Park’s airspace, which lies along the east-west approaches to both Tucson International Airport and Davis-Monthan Air Force Base; ultralight aircraft are also common in the region. According to the 1988 General Management Plan, “aircraft frequently fly below the 2,000-foot minimum elevation advised by the FAA over wilderness areas,” and there is additionally “increasing concern [in wilderness areas] over the intrusion of noise from traffic and adjacent development in addition to aircraft overflights.”<sup>153</sup>

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<sup>148</sup> Personal Interview, Ms. Dottie Clark, Volunteer Friends of Saguaro National Park, (October 20, 2003).

<sup>149</sup> *Id.*

<sup>150</sup> *Id.*

<sup>151</sup> *Id.*

<sup>152</sup> C.T. Revere, *Saguaro needs funds to fight erosion, repair trails,....*, The Tucson Citizen, 1A, (May 19, 2003).

<sup>153</sup> *General Management Plan* at 5.

## Congestion

As suggested by the visitation statistics, many of the most difficult management challenges are simply a function of congestion. As articulated in the General Management Plan:

Visitor centers are increasingly overcrowded; parking lots are often filled to capacity with oversized vehicles, and building interiors are too small to accommodate the numbers of visitors. Roads that principally serve “windshield visitors” are also used by bicyclists, joggers, wildlife watchers, and commuters and can be frustratingly crowded, detracting from a relaxed leisurely experience. Demand for easily accessible horseback and hiking trails is intense. In the monument’s frontcountry, informal trails have proliferated, outstripping the staff’s ability to patrol, maintain, or eliminate them.<sup>154</sup>

One conflict that has recently caught the news headlines is the conflict over mountain bike use on the trails within the Park. In early 2002 an environmental group raised issues with the National Park Service over mountain bike use on particular trails within Saguaro National Park.<sup>155</sup> In response the National Park Service closed the Cactus Forest Trail to mountain bikers. The trail had been open to bikers since 1991.<sup>156</sup> The closure upset many cyclists and drew the immediate attention of the International Mountain Bike Association.<sup>157</sup> The National Park Service immediately began a new environmental review and at the completion of the review decided to reopen the trail with monitoring and mitigation measures in place.<sup>158</sup> This conflict appears to have subsided some over the past few months.

## Air Pollution

Perhaps the most intractable of the transboundary issues is air pollution in the Park, which is a Class I airshed. Air pollution creates both aesthetic and ecological concerns. According to the Environmental Assessment for the General Management Plan:

Poor air quality is currently having a number of direct and indirect impacts on the monument. Visibility is frequently reduced to the extent that scenic vistas cannot be appreciated; for examples, views from overlooks on Cactus Forest Drive are sometimes so obscured that the adjacent Santa Catalina Mountains, the Tucson

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<sup>154</sup> *General Management Plan* at 7.

<sup>155</sup> Tim Ellis, *Closure Plans Anger Cyclists*, *The Arizona Daily Star*, B1, (April, 10, 1002).

<sup>156</sup> *Id.*

<sup>157</sup> *Id.*; see also Editorial, *Pointless Controversy*, *The Arizona Daily Star*, B6, (April 12, 2002).

<sup>158</sup> Mitch Toblin, *Cyclists could soon be back on Cactus Forest Trail*, *The Arizona Daily Star*, B1, (March 13, 2003); 68 F.R. 11019 (proposed regulation to allow mountain bikes off-road in Saguaro National Park).

Mountains, and even the city of Tucson can barely be discerned. Views from the city to the monument are often similarly clouded. Even the shorter views within the monument are noticeably hazy and indistinct on occasion.<sup>159</sup>

### Impacts on Wildlife

Perhaps even more troubling than visibility issues are declines in saguaro cactus in the Rincon Mountain Unit thought by some researchers to be attributable to ozone pollution.<sup>160</sup> Other common explanations include several hard freezes, previous cattle grazing, previous mesquite-wood cutting, cacti theft, and vandalism. In contrast, saguaro populations in the Tucson Mountain Unit are “dense and vigorous and are truly representative of prime saguaro forests of the Tucson basin.”<sup>161</sup>

This variety of stresses and impacts have taken their toll on many biotic resources. For example, at least 27 plant species that were common in the Tucson Mountain Unit in 1950 have since disappeared.<sup>162</sup> Listed species known to occur in the park, as of 1997, include Mexican spotted owl, peregrine falcon, and lesser long-nosed bat. As of 2002, owls and falcons are stable; monitoring bat populations is inadequate to provide an assessment.<sup>163</sup> Additionally, mule deer and lowland frogs are in distress.<sup>164</sup> Nonetheless, tremendous biodiversity remains. Wildlife in the park include kit foxes, javelina, prairie dogs, jack rabbits, kangaroo rats, coyote, whitetail deer, black bear, and perhaps mountain lions; bird species include cactus wrens, Harris hawks, and Gila woodpeckers; familiar desert reptiles include rattlesnakes and Gila monsters; and invertebrates are represented by scorpions and tarantulas.<sup>165</sup>

Other wildlife issues of concern include: introduction of exotic plants and animals (including wildlife/pet conflicts), disruption of off-park wildlife migration corridors, and harassment and killing of wildlife (including roadkill incidents). Also of concern is a lack of baseline inventories of resources, including wildlife.

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<sup>159</sup> *Environmental Assessment* at 55.

<sup>160</sup> Winters at 51.

<sup>161</sup> *Environmental Assessment* at 58.

<sup>162</sup> Winters page 93.

<sup>163</sup> National Park Service, *Saguaro National Park Annual Performance Plan FY2003*, 4 (Nov. 27 2002).

<sup>164</sup> *Id.* at 10.

<sup>165</sup> Winters at 39-42.

## Funding

Another issue of concern that has come up in connection with Saguaro National Park is the lack of funding that is provided for the management of the area. As of fiscal year 2000, the Park has an annual budget of approximately \$2.7 million, used primarily to sustain 52 permanent positions, 31 seasonal positions, and 29,000 volunteer hours.<sup>166</sup> Many parties feel this may be inadequate, given the scope of the Park and the associated management challenges. One area where manpower shortages seem evident is involves property management: Saguaro National Park has 66 historic structures, 400 archeological sites, and 90,000 museum and archive pieces.<sup>167</sup> Another concern is the lack of funds for adequate trail upkeep—which can lead to increased erosion.<sup>168</sup> This is an area where non-profit groups can provide some assistance.<sup>169</sup>

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<sup>166</sup> *Strategic Plan* at 9.

<sup>167</sup> Editorial, *Parks In Crisis: We Are Losing*, The Tucson Citizen, 4B, (May 20, 2003).

<sup>168</sup> C.T. Revere, *Parks in Crisis: Saguaro Needs funds to fight erosion, repair trails...*, The Tucson Citizen, 1A, (May 19, 2003).

<sup>169</sup> One such organization is the Rincon Institute, an affiliate of the Sonoran Institute (see <http://www.rinconinstitute.org/>).

## APPENDIX A. FOR MORE INFORMATION

The footnotes in this and the condensed memo cite a variety of information sources that can be consulted, as necessary, for more information. Many of these sources are included in the notebook, which contains its own bibliography.

The sub-set of sources listed below are, generally, most useful in quickly answering a variety of questions regarding historical and current issues in Saguaro National Park.

A. Berle Clemensen, National Park Service, *Cattle, Copper, and Cactus: the History of the Saguaro National Monument*, (Jan. 1987). [Many of the most relevant pages have been photocopied and are available in the notebook.]

*Strategic Plan for Saguaro National Park: FY 2000 to FY 2005* (2000), approved by Frank Walker, Superintendent. National Park Service. April 14. [Download at: <http://data2.itc.nps.gov/parks/sagu/ppdocuments/ACFAFC.pdf>; also in notebook.]

*General Management Plan: Saguaro National Monument*, Arizona (1988) (Final), U.S. Department of the Interior, National Park Service.

*Environmental Assessment: General Management Plan: Saguaro National Monument*. (1987) (Draft), U.S. Department of the Interior, National Park Service.

*Annual Performance Plan FY2002: Saguaro National Park*. U.S. Department of the Interior, National Park Service. (Download at: <http://data2.itc.nps.gov/parks/sagu/ppdocuments/GPRA-APP-03.pdf>)

### Saguaro National Park

Internet: <http://www.nps.gov/sagu/index.htm>

Mail: Saguaro National Park: Headquarters and Rincon Mountain District  
3693 South Old Spanish Trail  
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