

RENEWABLE ENERGY IN THE NATIONAL PARK SERVICE

INTRODUCTION

The National Park Service is the steward of some of the world's finest natural and cultural resources and is regarded by many people as the premier resource conservation agency in the United States if not the world. The mission of the National Park Service is clearly defined in the organic act of 1916.

to conserve the scenery and the natural and historic objects and the wildlife therein, and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations.

This strong mandate and policy direction has always emphasized protecting and conserving this country's cultural and natural resources while providing the visiting public with opportunities to learn about these resources. When the National Park Service celebrated its 75th anniversary in 1991, it charted a course for how it would accomplish its mission into the next century. The resulting vision document titled *National Parks for the 21st Century: The Vail Agenda*, provides strategic objectives and directions for the future management of the National Park Service. Incorporating sustainability and sustainable design was recommended in *The Vail Agenda* as one method of meeting challenges that currently face the National Park Service.

The Park Service defines sustainable design as a design that meets the needs of the present without compromising the ability of future generations to meet their own needs. Many people feel this definition bears a striking resemblance to the organic act – the founding legislation for the National Park Service.

Sustainability and sustainable design also have received commitment from the administration as evidenced by the establishment of the President's Council on Sustainable Development, the signing of the Climate Change Action Plan, the implementation of Executive Order 12902 ("Energy Efficiency and Water Conservation at Federal Facilities"), and the establishment of Technology for a Sustainable Future.

An important part of the recently approved *NPS Strategic Plan* is to achieve sustainability in all national park operations and development. In October 1992 the National Park Service released *Guiding Principles of Sustainable Design* to provide a framework for achieving sustainability in all activities.

One of the main components of sustainable design is energy management. The use of renewable energy sources, such as photovoltaics (PV), is a key strategy for energy management. In fall 1992 the Denver Service Center of the National Park Service contacted the Photovoltaics Systems Assistance Center (PVSAC) at Sandia National Laboratories in Albuquerque, New Mexico, to provide technical training to interested NPS professionals. As a result of this initial session, a partnership was developed to

promote energy conservation and increase the use of renewable energy at NPS facilities. An equally important objective was to provide educational opportunities to park visitors in the specific areas of energy conservation, renewable energy, and sustainability in general. In fall 1993 a partnership agreement was funded by the Photovoltaic Design Assistance Center to survey all national park system units to

- locate existing PV systems and determine their function
- assess the satisfaction with existing PV systems
- identify potential future PV projects
- identify barriers to the use of PV power and propose solutions

METHODOLOGY

In February 1994 NPS Deputy Director John Reynolds transmitted to each national park system field unit a survey questionnaire concerning existing PV use and other sustainable practices, the potential for future PV use, and barriers to that potential use. There are 368 field units, which include national parks, national monuments, national historic sites, national seashores, national recreation areas, etc. These field units will hereafter be referred to in aggregate as parks. However, a particular management unit might manage multiple field units. It is estimated that for the 368 field units surveyed, 278 management units exist; 201 management units responded to the survey.

Information from the surveys was used to create a database and forms the foundation for this report. Information in the database concerning existing PV systems will be integrated into the National Park Service's Inventory and Condition Assessment Program (ICAP) once that program is deployed servicewide. The Denver Service Center will continue to update and maintain the listing for future PV projects.

Follow-up phase II surveys were sent to those parks that identified potential PV projects of a larger scale. The purpose of the phase II surveys was to roughly determine the size of potential PV projects so that a cost estimate for programming could be prepared by the Denver Service Center. The goal of this data collection and cost estimating effort is to formulate a five-year program to expand the use of renewable energy in the parks. Under this new program called "Renew the Parks," park personnel will be trained on renewable energy and the creation of partnerships will be encouraged.

EXISTING PHOTOVOLTAIC USE IN THE NATIONAL PARK SERVICE

According to the survey there are at least 455 existing PV systems in use today. Based on subsequent visits to parks, there is a likelihood that not all small PV systems were accurately included in the survey responses. It is estimated that more than 600 PV systems are currently in use in the Park Service (see Appendix A).

The use of PV systems by the National Park Service is occurring over a broad geographical area and in many climatic conditions. Historically, PV energy was first used in communication systems at remote locations, such as radio repeater sites on

mountaintops. Later PV energy was found to be effective in supplying power for resource monitoring equipment. Most recently PV systems have been used to meet larger power needs such as water pumping, remote facility power, and indoor/outdoor lighting. Using PV energy for ventilation at campground restrooms, composting toilets, and vault toilets also is a significant use.

One exception to this historical progression is the PV system at Natural Bridges National Monument. At the time of installation by the National Park Service and the Department of Energy in 1980, this 100kW system was the largest stand-alone system in the United States. This system provided reliable operation, meeting the electrical loads of the visitor center and ranger residences until 1989 when the useful life of the batteries ended. In 1992 the batteries were replaced, and the system returned to service as a PV hybrid, providing a clean and noiseless source of power that is compatible with the sustainable operation of the park.

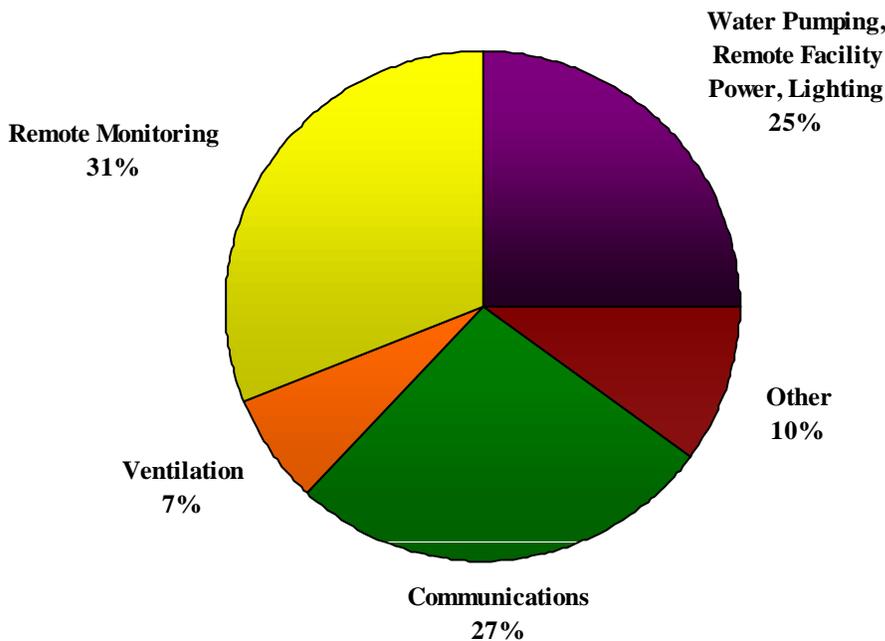


Figure 1: Distribution of Existing PV Uses in the National Park Service

The majority (61%) of the existing PV systems are used on a year-round basis; 34% are used seasonally, and the remaining systems (5%) have intermittent applications or have been abandoned. The ages of existing PV systems are listed below.

- 23% less than two years
- 28% two to less than five years
- 34% five to less than 10 years
- 15% 10 years or more

A majority of the power demands are less than 1 kilowatt (kW).

Remote monitoring is a very powerful tool in natural resource protection and management. Seismic, water level, water flow, snow depth, atmospheric conditions, and wildlife observations are some of the applications where PV energy is used.

Using PV power to pump water is an especially attractive option at NPS facilities. Photographs on the following pages depict some of these PV applications.

EVALUATIONS OF EXISTING PHOTOVOLTAIC SYSTEMS

As part of the survey, parks with existing PV systems were asked to evaluate each component of the PV system and the system as a whole.

Responses indicated that 97% of the existing PV systems met their use objectives. Problems associated with the remaining systems (3%) included

- operating errors (turning system off in winter)
- poor design (insufficient charging capacity and/or battery storage)
- component failure
- photovoltaic panels stolen and/or vandalized

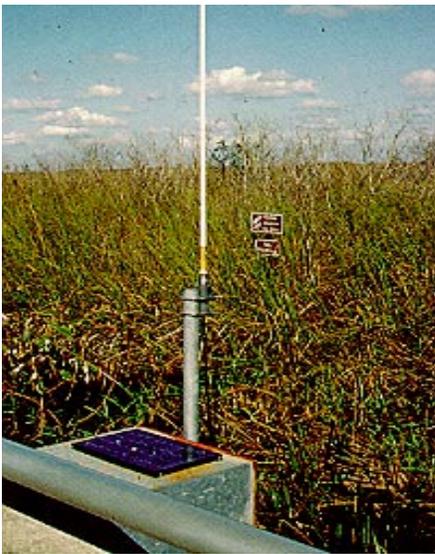
Only two cases of vandalism were reported; however, five cases of theft were reported. Theft of PV panels is a growing problem, especially at remote locations. As the monetary value of PV panels becomes increasingly known, theft is expected to increase unless mitigating measures are implemented.

Measures may include carefully selecting locations at unsupervised sites and using vandal-resistant connectors and fasteners.

In addition to the 3% of PV systems that failed to meet their use objectives(s), respondents indicated that another 3% of the PV systems evaluated performed poorly in one or more component areas. Even though these PV systems experienced component problems, the parks surveyed felt the use objectives for these slightly flawed systems were being met.

Component problems identified by the parks included battery problems (19 systems), PV panel problems (10 systems), and controller problems (eight systems).

There was no correlation between the age of the troubled systems and problems they were experiencing. It was originally thought that older systems would exhibit more problems; however, most



At Everglades National Park, a 10-watt PV panel is used to power remote hydrologic monitoring equipment. The monitoring equipment shown measures water depth on an hourly basis and downloads the daily record to a central NPS research facility.

of the problem systems were evenly distributed between the two- to four-year category and the five- to nine-year category. It should be noted that only three systems less than two years old were reported to have any problems.

Survey results concerning estimated annual operations and maintenance (O&M) costs for PV systems were broken into three categories: less than expected or no O&M costs (39%), expected O&M costs (60%), and greater than expected O&M costs (1%).

BARRIERS

Of the 201 PV survey responses received, 151 identified at least one barrier for using a PV system. Most respondents identified multiple barriers. Parks without existing PV systems had more concerns (38%) than those parks with existing PV systems. The perceived barriers to the use of photovoltaic power are shown in figure 2.

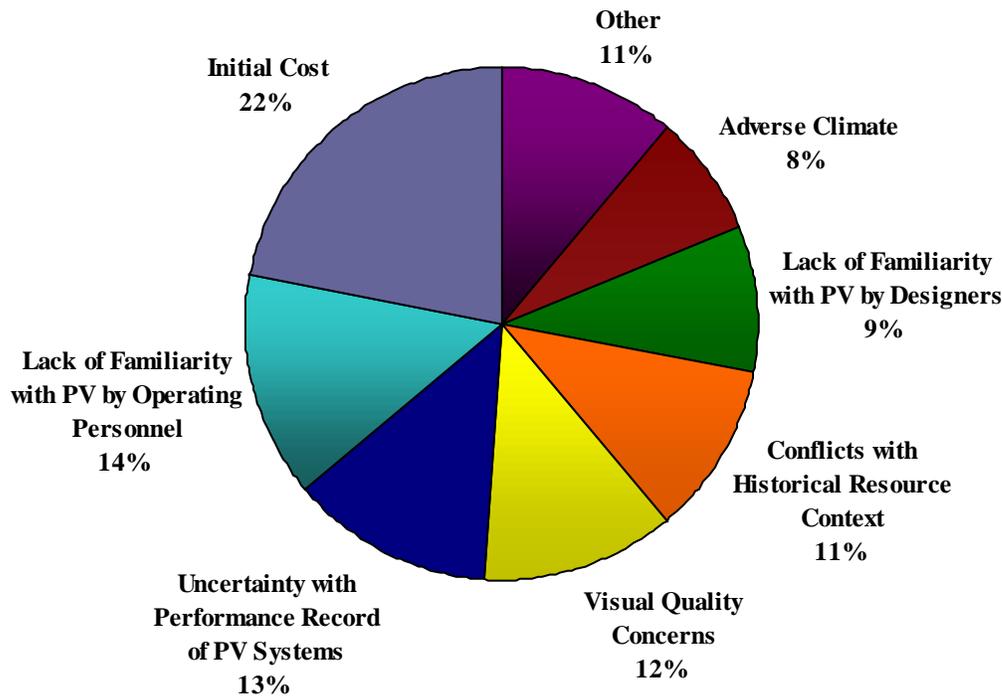


Figure 2: Barriers to the Use of Photovoltaic Power

Initial Cost

According to the survey, the initial cost of PV systems was the biggest concern. To overcome this barrier, the National Park Service will have to form partnerships with other agencies and groups. Potential partners include the Department of Energy, Sandia National Laboratories, the National Renewable Energy Laboratory, the Environmental Protection Agency, environmental groups, and the PV industry. The Department of Energy's Federal Energy Management Program has been established to fund viable energy and water conservation projects as well as renewable energy projects undertaken

by federal agencies. The National Park Service brings to any potential partnership 75 years of environmental education experience and the opportunity to promote energy innovation and education to the 270 million visitors that come to the parks each year.

To reflect all the impacts (including costs) of using fossil fuels to generate electricity, and in support of the Climate Change Action Plan, the Park Service is interested in improving air quality by eliminating emissions associated with the burning of fossil fuels. The following emission costs are used as part of life-cycle costing for every NPS development decision:



On the remote north rim of the Black Canyon of the Gunnison, photovoltaics is the primary power source for a combination visitor contact station and ranger residence. Note how the PV system has been integrated into the site to enhance visual quality.

- carbon dioxide (CO₂) \$8 / ton
- sulfur dioxide (SO₂) \$0.75 / pound
- nitrous oxide (NO_x) \$3.40 / pound

Lack of Familiarity with PV by Operating Personnel and Uncertainty with the Performance Record of PV Systems

These two barrier items are similar in many respects. Common methods in achieving technology transfer can be applied here. Technical presentations at national, regional, and park conferences and meetings are an effective way to introduce PV technology in a general format. Sandia's Photovoltaic Systems Assistance Center and the National Renewable Energy Laboratory can provide excellent overview presentations. These overview presentations need to feature park areas that are currently using PV energy. Personnel from the following areas have had good operating experiences with larger PV applications (remote facility power and water pumping) and are important in communicating the performance record of PV systems to their NPS colleagues.

- Channel Islands
- Sleeping Bear Dunes
- Death Valley
- Black Canyon of the Gunnison
- Natural Bridges
- Glen Canyon
- Capitol Reef
- Crater Lake
- Rocky Mountain
- Great Basin
- Yosemite
- Wrangell-St. Elias

Technical training is required to provide a fundamental technical foundation for design and O&M personnel. This formal training can be provided by a number of outside sources. Photovoltaic site assessments provide site-specific recommendations concerning system feasibility. Communications between NPS users and O&M personnel regarding PV power is also promoted in photovoltaic site assessments. Sandia's Photovoltaic Design Assistance Center has provided outstanding service in this area.

One final barrier that must be overcome in this category is the association of PV performance with the performance of early solar thermal for hot water heating. In the late 1970s and early 1980s the National Park Service undertook an initiative to expand the use of solar thermal for domestic hot water heating. This initiative was very similar to the current renewable energy initiative with hopefully one exception – results. Many of the solar hot water systems installed during this time are no longer functional and have been removed or disconnected and left on rooftops as a testament to an unsuccessful solar thermal program.

It is paramount that PV systems deliver the results promised on a sustained basis. Some field personnel are very skeptical of renewable energy based on this past experience with solar thermal.

Visual Quality Concerns and Conflicts with Historic Resources

These two barriers are significant because they impact the basic management objectives of the National Park Service – “to leave them [cultural and natural resources] unimpaired for the enjoyment of future generations.”



This water pumping system at Capitol Reef National Park meets the peak season demand of 20,000 gallons per day at a total dynamic head of 35 feet. This system uses gravity water storage tanks, which eliminates the need for electrical battery storage. The system is further enhanced by the use of low-flow plumbing fixtures at facilities, which have significantly reduced the total volume of pumped water.

To overcome these barriers, several action plans are offered. Small PV systems associated with smaller electrical loads will have very little impact on visual quality. The installation of large PV systems in developed areas will have a visible impact. This impact needs to be viewed as an opportunity to interpret the use of renewable energy and the positive impacts this use has on the global environment. The National Park Service has a mandate as well as a tremendous opportunity to educate the 270 million visitors that enter the parks each year on the use of sustainable technologies such as renewable energy.

For large PV systems in the more sensitive developed



Photovoltaic power is used on a large scale at Channel Islands National Park to provide electricity at several sites. On Santa Barbara Island, a 5 kW system provides power to a new building that contains a visitor contact station, maintenance shop, and residence.



This PV powered water pumping system at Sleeping Bear Dunes National Lakeshore provides several hundred gallons per day at system pressures of 20-40 psi. Because this is a pressure tank system, batteries are required to provide 24-hour water.

areas, the Park Service has the capability, at the Denver Service Center, to use computer visual simulation to show how the developed area would look after the proposed PV system has been constructed. The process involved to achieve this depiction is to initially design (size) the PV system, obtain a real-time photograph of the developed area from a critical viewpoint, and superimpose, to scale, the PV system on the site photograph. This technique enables siting modifications to be enacted and provide park management with a clear perspective of what the completed facility would look like.

Not all PV systems need to be constructed on or near existing facilities; however, there are certain technical advantages in having the PV system near the power use point. Photovoltaic systems can be located away from critical areas to reduce visual impacts and/or take advantage of increased exposure to the sun. Depending on the voltage used, the balance of system (BOS) components such as batteries, charge controllers, inverters, etc., may also have to be remotely located. Large PV systems may also be split into several smaller systems to mitigate visual quality concerns.

FUTURE USE OF PHOTOVOLTAIC POWER

As part of the survey, parks were requested to indicate proposed PV projects. It was anticipated that parks would identify about 100-150 future PV projects. After all the data was compiled, 643 future PV projects were identified by 125 parks. The breakdown by use category is shown in figure 3.

Figure 3 indicates that the percentage of proposed use anticipated for remote facility power (water pumping and lighting) is increasing compared to the historical big users of PV power (communication and resource monitoring). Remote facility power requires larger PV systems than communications and resource monitoring. The implication may be that PV users are becoming accustomed to this technology and want to move up to the next level.

Appendix B lists all the proposed PV projects by application and location. Projects are compiled in a five-year action plan. Total cost of the 643 projects listed is estimated at \$28 million. The survey identified current uses and potential future projects. More than a megawatt of new, cost-effective applications for photovoltaic energy are shown in Appendix B, which represents only a fraction of the potential uses identified so far. Cost estimates for each application were prepared by the Denver Service Center and include not only direct PV construction costs but costs for implementing demand side management strategies such as converting to propane heating, installing energy efficient appliances and lighting, and converting to water-conserving plumbing fixtures (the National Park Service has the drinking water and wastewater utility at most locations).

These energy conservation strategies are a prerequisite for sustainable design and are required to optimize the efficiency of PV systems. Because electrical loads and maintenance requirements would be reduced by implementing these strategies, the estimates of power for future PV systems greatly underestimates the true amount of energy savings and cost benefits that could be achieved.

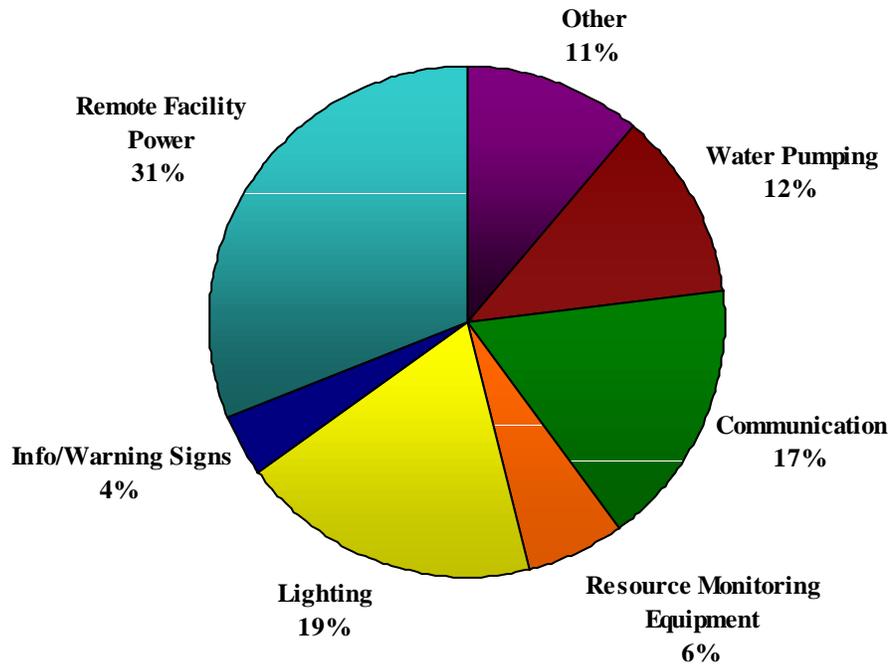


Figure 3: Future Use of Photovoltaic Power in the National Park Service

As stated earlier, phase II survey forms were sent to each park that identified the need for larger PV projects such as remote facility power and water pumping. Phase II survey results provided information on the scale of facilities to be served by PV power so that a more complete estimate could be prepared. Cost estimates for these larger projects also include design and contract preparation costs.

The highest priority projects for the National Park Service are where power is currently being supplied by engine generator sets (usually diesel fueled). The survey results indicate a need for replacement projects at 60 locations, which would greatly improve air quality by eliminating diesel fuel emissions.

Many of the locations where diesel fuel is currently stored have experienced moderate to severe spills. Fuel spills cleanup measures have been very costly, approaching several hundred thousand dollars per site in some cases. The use of PV systems at these sites will eliminate these groundwater and soil pollution exposures.

Reducing noise pollution in pristine areas that results from 24-hour operation of engine generators is another reason to replace diesel fuel generators with environmentally friendly and quiet PV systems.

Finally, life-cycle cost analysis indicates that in most cases, engine generated power is more costly than PV power systems and does not provide the significant environmental benefits associated with PV power.

IMPLEMENTATION

The cost estimates in Appendix B represent program formulation estimates. Cost estimates will be further refined at the site assessment stage. The site assessment is the first activity in the pre-design step of the NPS design process and consists of

- reviewing the existing power system (if power is available at site) and assessing existing and future electrical loads
- initially evaluating renewable resources
- evaluating the potential for energy conservation
- recommending renewable energy options and costs



The Photovoltaic Systems Assistance Center conducts site assessments at no charge to the National Park Service. Assessments can be scheduled by contacting Hal Post at (505) 844-2154 or Mike Thomas at (505) 844-1548. Private engineering firms and PV system integrators can also provide this service on a fee basis.



PV powered emergency telephone

If a site assessment indicates PV or other renewable are feasible, additional pre-design activities such as implementing energy conservation practices, evaluating solar and/or wind resources at the site, and field monitoring of electrical and fuel loads can take place. The remaining design steps such as preliminary design, contract documents, construction, and post-construction evaluation are outlined in NPS-70 (Interim Release, March 1994).

PARK	LOCATION	SYSTEM TYPE
1 ANIAKCHAK NPRES	Anigaag Ranger Station	Communications
2 ANIAKCHAK NPRES	Kelly Ranger Station	Communications
3 ANIAKCHAK NPRES	Mount Moak	Communications
4 ANIAKCHAK NPRES	Old Man	Communications
5 ANIAKCHAK NPRES	Onion Portage Ranger Station	Communications
6 APOSTLE ISLANDS NL	Basswood Island	Water Pumping
7 APOSTLE ISLANDS NL	Cat Island	Water Pumping
8 APOSTLE ISLANDS NL	Devils Island	Water Pumping
9 APOSTLE ISLANDS NL	Manitou Island	Water Pumping
10 APOSTLE ISLANDS NL	Michigan Island	Security System
11 APOSTLE ISLANDS NL	Oak Island	Residence Power
12 APOSTLE ISLANDS NL	Oak Island	Water Pumping
13 APOSTLE ISLANDS NL	Otter Island	Water Pumping
14 APOSTLE ISLANDS NL	Outer Island	Security System
15 APOSTLE ISLANDS NL	Rocky Island	Water Pumping
16 APOSTLE ISLANDS NL	Sand Island	Residence Power
17 APOSTLE ISLANDS NL	Sand Island	Security System
18 APOSTLE ISLANDS NL	Sand Island	Water Pumping
19 APOSTLE ISLANDS NL	South Twin Island	Water Pumping
20 APOSTLE ISLANDS NL	Stockton Island, Presque Isle	Residence Power
21 APOSTLE ISLANDS NL	Stockton Island, Presque Isle	Water Pumping
22 APOSTLE ISLANDS NL	Stockton Island, Quarry Bay	Residence Power
23 APOSTLE ISLANDS NL	Stockton Island, Quarry Bay	Water Pumping
24 APPROMATTOX COURT HOUSE NHP	Historic Leased Pastures	Fencing
25 ASSATEQGUE ISLAND NS	Utm: 512360n 48123e	Monitoring
26 AZTEC RUINS NM	Trail	Lighting
27 BADLANDS NP	Pinnacles District	Monitoring
28 BALTIMORE-WASHINGTON PARKWAY	Baltimore-Washington Parkway	Communications
29 BANDELIER NM	Base Camp	Facility Power
30 BANDELIER NM	Building #5 Gas & Oil House	Lighting

31 BANDELIER NM	Building 15, Admin Building	Lighting
32 BANDELIER NM	Quarters #103	Water Heating
33 BANDELIER NM	Quarters #11 Stone House Area	Motion Sensor
34 BANDELIER NM	Quarters #43 White House Area	Motion Sensor
35 BANDELIER NM	Radio Battery Charging System	Communications
36 BANDELIER NM	Radio Battery Charging System	Communications
37 BANDELIER NM	Solar Water Heating System	Water Heating
38 BERLING LAND BRIDGE NP	Hoodoo Hill	Raws
39 BERLING LAND BRIDGE NP	Midnight Mountain	Communications
40 BERLING LAND BRIDGE NP	Mt Bendeleben	Communications
41 BIG BEND NP	Bolt Springs Cabin	Residence Power
42 BIG BEND NP	Boot Springs Barn	Lighting
43 BIG BEND NP	Emory Peak	Communications
44 BIG SOUTH FORK NR		Electric Fence
45 BIG THICKET NPRES	Ranch House	Battery Charging
46 BIGHORN CANYON NRA	Barry's Landing	Lighting Boat Dock
47 BIGHORN CANYON NRA	Bighorn Canyon V C	Interpretive Display
48 BIGHORN CANYON NRA	Eye of the Eagle	Communications
49 BIGHORN CANYON NRA	Lovell	Monitoring
50 BIGHORN CANYON NRA	Parkwide	Battery Charger
51 BIGHORN CANYON NRA	South Unit Sorenson	Communications
52 BISCAYNE NP	Boca Chita Key	Restroom Power
53 BLACK CANYON OT GUNNISON NM	North Rim Ranger Station	Facility Power
54 BLACK CANYON OT GUNNISON NM	South Rim Fire Box	Water Pumping
55 BLACK CANYON OT GUNNISON NM	South Rim Restrooms	Restroom Power
56 BLUE RIDGE PKWY	Craggy Gardens Visitor Center	Cash Register
57 BLUE RIDGE PKWY	Humpback Rocks Picnic Area	Water Pumping
58 BLUE RIDGE PKWY	Oteen Maint Area	Automatic Gate
59 BLUE RIDGE PKWY	Traffic Counters	Traffic Counter
60 BRYCE CANYON NP	Aqua Canyon Raws Station	Monitoring
61 BRYCE CANYON NP	Yovempa Point	Monitoring
62 BUFFALO NR	Hathaway Mountain	Communications

63 BUFFALO NR	Throughout Park	Communications
64 CABRILLO NM	Upper Maintenance Shop Roof	Water Pumping
65 CANYONLANDS NP	Maze District Rest Area	Residence Power
66 CAPE HATTERAS NS	Bodie Island	Monitoring
67 CAPE HATTERAS NS	Cape Point	Monitoring
68 CAPITOL REEF NP	Fremont Gorge	Water Pumping
69 CARLSBAD CAVERNS NP	Borman Cabin	Communications
70 CARLSBAD CAVERNS NP	Golf Cart	Transportation
71 CARLSBAD CAVERNS NP	Second Water Tank	Communications
72 CARLSBAD CAVERNS NP	Visitor Center	PV Battery Charger
73 CATOCTIN MOUNTIAN PARK	Hog Rock Pit Toilet	Residence Power
74 CHANNEL ISLANDS NP	Anacapa Island	Residence Power
75 CHANNEL ISLANDS NP	San Miguel Island	Residence Power
76 CHANNEL ISLANDS NP	Santa Barbara Island	Residence Power
77 CHESAPEAKE & OHIO CANAL NHP	Kidwell Farm Tract	Water Pumping
78 CHIRICAHUA NM	Sugarloaf Mountain	Communications
79 CONGAREE SWAMP NM	Congaree River S. Boundary	Monitoring
80 CRATER LAKE NP	Cleetwood Cave Toilets	Restroom Vents
81 CRATER LAKE NP	Mt. Scott Fire Lookout	Communications
82 CRATER LAKE NP	Watchman Fire Lookout	Communications
83 CRATERS OF THE MOON NM	Top Of Sunset Cone	Communications
84 DEATH VALLEY NM	Wildrose	Residence Power
85 DENALI NP	14,200 Ranger Station	Communications
86 DENALI NP	8000' Kahiltna Glacier	Communications
87 DENALI NP	Lake Hinchumina Raws	Monitoring
88 DENALI NP	Rock Creek Ridge	Monitoring
89 DENALI NP	Savage Entrance Station	Communications
90 DENALI NP	Savage Repeater	Communications
91 DENALI NP	Slippery Slough Raws	Monitoring
92 DENALI NP	Thovofave Repeater	Communications
93 DENALI NP	Upper Rock Creek	Monitoring
94 DENALI NP	Wickersham Dome	Communications

95 DENALI NP	Wonder Lake Ranger Station	Communications
96 EVERGLADES NP	Park-Wide	Monitoring (73 Locations)
97 FORT LARAMIE NHS	Outdoor Toilet #225	Facility Power
98 FOSSIL BUTTE NM	Cundick Ridge Repeater Station	Communications
99 GLACIER NP	Cyclone Lookout/cyclone Mt.	Communications
100 GLACIER NP	Huckleberry Lookout	Communications
101 GLACIER NP	Numa Lookout	Communications
102 GLEN CANYON NRA	Dangling Rope Marina #1	Lighting
103 GLEN CANYON NRA	Dangling Rope Marina #2	Lighting
104 GLEN CANYON NRA	Hall's Crossing Shore Lites	Lighting
105 GLEN CANYON NRA	Main Channel & Wahweap Bay	Lighting
106 GLEN CANYON NRA	Park-Wide	Navigation Ail (19 Buoys)
107 GLEN CANYON NRA	Rainbow Bridge Courtesy Dock	Venting
108 GLEN CANYON NRA	Rainbow Bridge Junction	Lighting
109 GLEN CANYON NRA	Shore Lite #15	Lighting
110 GLEN CANYON NRA	Short Lite #16	Lighting
111 GLEN CANYON NRA	South Lake Shore Drive	Monitoring
112 GLEN CANYON NRA	Warm Creek And Main Channel	Lighting
113 GRAND CANYON NP	Cottonwood Ranger Station	Facility Power
114 GRAND CANYON NP	Southgate Parking	Lighting
115 GRAND CANYON NP	Tuweep Ranger Station	Facility Power
116 GRAND TETON NP	Berry Creek Patrol Cabin	Communications
117 GRAND TETON NP	Portable Repeater #1	Communications
118 GRAND TETON NP	Portable Repeater #2	Communications
119 GREAT BASIN NP	Baker Creek Campground	Restroom Fan
120 GREAT BASIN NP	Baker Creek Campground Road	Monitoring
121 GREAT BASIN NP	Baker Flat Weather Station	Monitoring
122 GREAT BASIN NP	Bald Mountain Weather Station	Communications
123 GREAT BASIN NP	Burnt Mill Weather Station	Monitoring
124 GREAT BASIN NP	Entrance Gate Dump Station	Lighting
125 GREAT BASIN NP	Fremount Weather Station	Monitoring
126 GREAT BASIN NP	Lower Lehman Creek Cg	Exhaust Fan

127 GREAT BASIN NP	Nadp Site - Acid Rain Station	Monitoring
128 GREAT BASIN NP	Wheeler Peak Campground	Restroom Fan
129 GREAT SMOKY MOUNTAINS NP	Balsam Mountain	Lighting
130 GREAT SMOKY MOUNTAINS NP	Cades Cove Visitor Center	Facility Power
131 GREAT SMOKY MOUNTAINS NP	Clingmans Dome	Communications
132 GREAT SMOKY MOUNTAINS NP	Hazel Creek	Water Pumping
133 GREAT SMOKY MOUNTAINS NP	Newfound Gap	Communications
134 GREAT SMOKY MOUNTAINS NP	Shuckstack	Communications
135 GUADALUPE MOUNTIANS NP	Bowl Remote Area Raws	Monitoring
136 GUADALUPE MOUNTIANS NP	Bush Mountain Radio Repeater	Communications
137 GUADALUPE MOUNTIANS NP	Nadp Acid Rain Station	Monitoring
138 GUADALUPE MOUNTIANS NP	Transmissometer Station	Monitoring
139 HALEAKALA NP	Kipahulu	Restroom Power
140 HAWAII VOLCANOES NP		Electric Fence
141 HAWAII VOLCANOES NP	Mauna Loa	Communications
142 HAWAII VOLCANOES NP	Vennel	Facility Power
143 HERBERT HOOVER NHS	B52 Maintenance Shop	Fans & Vents
144 JOHN DAY FOSSIL BEDS NM	Blue Basin	Residence Power
145 JOHN DAY FOSSIL BEDS NM	Clarno	Residence Power
146 JOHN DAY FOSSIL BEDS NM	Sheep Rock	Communications
147 JOSHUA TREE NM	Lost Horse	Facility Power
148 JOSHUA TREE NM	Lost Horse	Water Pumping
149 KALOKO-HONOKOHAU NHP	Honokohau Beach	Residence Power
150 KATMAI NP	Backcountry	Communications
151 KENAI FJORDS NP	Aialik Bay Ranger Station	Communications
152 KENAI FJORDS NP	Exit Glacier Ranger Cabin	Communications
153 KENAI FJORDS NP	Mcarthur Pass Repeater Station	Communications
154 KENAI FJORDS NP	Nuka Bay Ranger Station	Communications
155 KENAI FJORDS NP	Rugged Island Repeater Station	Communications
156 KENAI FJORDS NP	Seal Rocks Repeater Station	Communications
157 KLONDIKE GOLD RUSH NHP - AK	Dyea Ranger Station	Cwater Pumping
158 KLONDIKE GOLD RUSH NHP - AK	Kalvik House	Residence Power

159 KLONDIKE GOLD RUSH NHP - AK	Sheep Camp Ranger Station	Communications
160 LAKE CLARK NP	Bonanza Hills	Communications
161 LAKE CLARK NP	Little Lake Clark	Communications
162 LAKE CLARK NP	Raws Field Headquarters	Weather Date
163 LAKE CLARK NP	Raws Telaquina Lake	Weather Date
164 LAKE CLARK NP	Telauina Lake	Communications
165 LAKE CLARK NP	Twin Lakes	Communications
166 LAKE MEREDITH NRA	Arrowhead Island	Nav-aid
167 LAKE MEREDITH NRA	Carpenter Shop	Heat
168 LAKE MEREDITH NRA	Harbor Bay	Nav-aid
169 LAKE MEREDITH NRA	Mechanic Shop	Heat
170 LASSEN VOLCANIC NP	Drakesbad	C12 Metering Pump
171 LASSEN VOLCANIC NP	Drakesbad	Restroom Power
172 LASSEN VOLCANIC NP	Headquarters	Wastewater -Mgmt
173 LASSEN VOLCANIC NP	Manzinita Lake	Wastewater -Mgmt
174 LASSEN VOLCANIC NP	Summit Lake	C12 Metering Pump
175 LASSEN VOLCANIC NP	Warner Valley R.S.	C12 Metering Pump
176 LITTLE BIGHORN BATTLEFIELD NM	Headquarters	Facility Power
177 LYNDON B JOHNSON NHP	North Fenceline	Fence Charger
178 LYNDON B JOHNSON NHP	Show Barn	Fence Charger
179 MESA VERDE NP	Park Point Lookout Tower	Communications
180 MOORES CREEK NB	Visitor Center	Lighting
181 MOUNT RAINIER NP	Camp Muir	Communications
182 MOUNT RAINIER NP	Camp Muir	Lighting
183 MOUNT RAINIER NP	Camp Muir Solar Toilet	Other
184 MOUNT RAINIER NP	Camp Schurman	Communications
185 MOUNT RAINIER NP	Gobblers Knob Lookout	Communications
186 MOUNT RAINIER NP	Mather "y"	Traffic Counter
187 MOUNT RAINIER NP	Mount Freemont Lookout	Communications
188 MOUNT RAINIER NP	Mystic Lake	Communications
189 MOUNT RAINIER NP	Stevens Canyon Entrance	Cash Register
190 MOUNT RAINIER NP	Stevens Canyon Entrance	Fans

191 MOUNT RAINER NP	Summerland Toilet	Facility Power
192 MOUNT RAINER NP	White River Campground	Lighting
193 NATCHEZ TRACE PKWY	Mp204-hwy 82	Traffic Counter
194 NATCHEZ TRACE PKWY	Mp80 John Bell Williams Hwy	Traffic Counter
195 NATURAL BRIDGES NM	Maintenance Area	Facility Power
196 NORTH CASCADES NP	Easy Ridge	Communications
197 NORTH CASCADES NP	Mcgregor Mountain	Communications
198 NORTH CASCADES NP	Remote Backcountry (10 each)	Communications
199 NORTH CASCADES NP	Ruby Mountain	Communications
200 OLYMPIC NP	Blue Mountain	Communications
201 OLYMPIC NP	Deer Park Ranger Station	Communications
202 OLYMPIC NP	Dosewallips Ranger Station	Communications
203 OLYMPIC NP	Elk Lick Mountain	Communications
204 OLYMPIC NP	Enchanted Valley Ranger Station	Communications
205 OLYMPIC NP	Graves Creek Ranger Station	Communications
206 OLYMPIC NP	Hayes River Ranger Station	Communications
207 OLYMPIC NP	Kloochman Rock	Communications
208 OLYMPIC NP	Low Divide Ranger Station	Communications
209 OLYMPIC NP	North Fork Ranger Station	Communications
210 OLYMPIC NP	Olympus Ranger Station	Communications
211 OLYMPIC NP	Peak Six	Communications
212 OLYMPIC NP	Queets Ranger Station	Communications
213 OLYMPIC NP	Remote Backcountry (8 each)	Communications
214 ORGAN PIPE CACTUS NM	North of Mount Ajo	Communications
215 OZARK NSR	Lower Current Dist Hawes Cg	Water Pumping
216 PETRIFEID FOREST NP	Entry Access Road	Lighting
217 PICTURED ROCKS NL	Buck Hill Radio Tower	Communications
218 PICTURED ROCKS NL	Chapel Beach Clivis Multrum	Composting Fan
219 PICTURED ROCKS NL	Little Beaver Campground	Water Pumping
220 PICTURED ROCKS NL	Lower Hurricane River Campground	Water Pumping
221 PICTURED ROCKS NL	Twelvemile Beach Campground	Water Pumping
222 PICTURED ROCKS NL	Twelvemile Beach Cg West	Water Pumping

223 PICTURED ROCKS NL	Upper Hurricane River CG	Water Pumping
224 PU'UHONUA O HONAUNAU NHP	House #1	Lighting
225 RAINBOW BRIDGE NM	Rainbow Bridge	Monitoring
226 REDWOODS NM	Elam Camp	Water Pumping
227 REDWOODS NM	Lane Ranch	Lighting
228 REDWOODS NM	Rodgers Peak	Communications
229 REDWOODS NM	School House Fire Lookout	Facility Power
230 REDWOODS NM	School Peak Lookout	Communications
231 ROCKY MOUNTAIN NP	Loch Vale Acid Rain Station	Monitoring
232 ROCKY MOUNTAIN NP	Longs Peak Solar Toilets (4)	Bc Toilet Fan
233 ROCKY MOUNTAIN NP	Many Parks Curve Air Monitoring	Monitoring
234 ROCKY MOUNTAIN NP	Twin Sisters Peak	Communications
235 SAGUARO NM	Manning Camp	Water Pumping
236 SALEM MARITIME NHS	Derby Wharf Lighthouse	Lighting
237 SCOTTS BLUFF NM	Summit Area	Communications
238 SEQUOIA NP	Ash Mt Headquarters	Monitoring
239 SEQUOIA NP	Atwell Mill Barn	Communications
240 SEQUOIA NP	Emerald Lake Comfort Station	Restroom Power
241 SEQUOIA NP	Evolution Park	Communications
242 SEQUOIA NP	Forgotten	Communications
243 SEQUOIA NP	Lookout Point	Facility Power
244 SEQUOIA NP	Milk Ranch Lookout	Communications
245 SEQUOIA NP	Mineral King	Monitoring
246 SEQUOIA NP	Mt. Gould	Communications
247 SEQUOIA NP	Palmer Mountain	Communications
248 SEQUOIA NP	Paradise Ridge	Communications
249 SEQUOIA NP	Peau Lake Comfort Station	Residence Power
250 SEQUOIA NP	Peau Lake Ski Hut	Restroom Power Fan
251 SEQUOIA NP	South Fork Campground	Restroom Power Fan
252 SEQUOIA NP	Windy Park	Communications
253 SLEEPING BEAR DUNES NL	Group Campground Mainland	Water Pumping
254 SLEEPING BEAR DUNES NL	North Manitou Isl Repeater	Communications

255 SLEEPING BEAR DUNES NL	Parkside 26 Each	Vent Fans
256 SLEEPING BEAR DUNES NL	Route 669 Mainland	Water Pumping
257 SLEEPING BEAR DUNES NL	S. Manitou Isl Weatherstation 1	Water Pumping
258 SLEEPING BEAR DUNES NL	S. Manitou Isl Popple Campground	Water Pumping
259 SLEEPING BEAR DUNES NL	S. Manitou Isl Weatherstation 2	Water Pumping
260 SLEEPING BEAR DUNES NL	South Manitou Isl. Schoolhouse	Water Pumping
261 SLEEPING BEAR DUNES NL	South Manitou Island	Water Pumping
262 THEODORE ROSSEVELT NP	North Unit	Other
263 TIMPANOGOS CAVE NM	Park Boundary	Monitoring
264 TONTO NM	NPS/Boneyard, USFS/Sewage Pond	Monitoring
265 TUSKEGEE INSTITUTE NHS	Water Tower	Communications
266 WHISKEYTOWN-SHASTA-TRINITY NRA	Whiskey Creek Group Picnic Area	Exhaust Fans
267 WHITE SANDS NM	Dunes Picnic Sites	Facility Power
268 WRANGELL-ST ELIAS NP	Chisana Fuel Station	Fuel Dispenser
269 WRANGELL-ST ELIAS NP	May Creek Bunkhouse	Residence Power
270 WRANGELL-ST ELIAS NP	May Creek Fuel Station	Fuel Dispenser
271 WRANGELL-ST ELIAS NP	May Creek Operations	Facility Power
272 WRANGELL-ST ELIAS NP	Mountain Top Radio Repeaters 10	Communications
273 WRANGELL-ST ELIAS NP	Remote Area Weather Station	Monitoring
274 WRANGELL-ST ELIAS NP	Slana Ranger Residence	Residence Power
275 WRANGELL-ST ELIAS NP	Slana Ranger Station Bunkhouse	Facility Power
276 YELLOWSTONE NP	7 Mile Bridge	Communications
277 YELLOWSTONE NP	Beartooth Area	Communications
278 YELLOWSTONE NP	Clear Creek Cabin	Monitoring
279 YELLOWSTONE NP	Fire	Communications
280 YELLOWSTONE NP	Fire Hole Lake	Communications
281 YELLOWSTONE NP	Fishing Bridge	Monitoring
282 YELLOWSTONE NP	Fountain Flat Road Intersection	Communications
283 YELLOWSTONE NP	Hayden Valley	Communications
284 YELLOWSTONE NP	Heart Lake Cabin	Communications
285 YELLOWSTONE NP	Midway Geyser Basin	Communications
286 YELLOWSTONE NP	Moose Exhibit	Communications

287 YELLOWSTONE NP	Mt. Holmes Lookout	Communications
288 YELLOWSTONE NP	Mt. Sheridan Lookout	Communications
289 YELLOWSTONE NP	Mt. Washburn Parking Lot	Communications
290 YELLOWSTONE NP	Mud Volcano	Communications
291 YELLOWSTONE NP	Park-Wide	Monitoring (31 Locations)
292 YELLOWSTONE NP	Pelican Cone	Communications
293 YELLOWSTONE NP	Portable Radio Repeater	Communications
294 YELLOWSTONE NP	Sheridan	Communications
295 YELLOWSTONE NP	Shoshone Lake Cabin	Communications
296 YELLOWSTONE NP	Small Brick Building	Monitoring
297 YELLOWSTONE NP	Thorofare Ck Cabin	Communications
298 YELLOWSTONE NP	Trail Creek Cabin	Communications
299 YOSEMITE NP	Crane Flat (fire) Lookout	Communications
300 YOSEMITE NP	Emerald Pool	Restroom Power
301 YOSEMITE NP	Glen Aulin Backpacker Cg	Residence Power
302 YOSEMITE NP	Glen Aulin High Sierra Camp	Communications
303 YOSEMITE NP	Lyv Backcountry	Restroom Power
304 YOSEMITE NP	Lyv Ranger Station	Residence Power
305 YOSEMITE NP	May Lake High Sierra Camp	Facility Power
306 YOSEMITE NP	Merced Lake High Sierra Camp	Communications
307 YOSEMITE NP	Merced Lake Ranger Station	Communications
308 YOSEMITE NP	Mt. Hoffman	Communications
309 YOSEMITE NP	Murphy Creek Building 3115	Vent Fan for Vault
310 YOSEMITE NP	Murphy Creek Building 3116	Vent Fan for Vault
311 YOSEMITE NP	Nevada Falls	Restroom Power
312 YOSEMITE NP	North Mountain	Communications
313 YOSEMITE NP	Ostrander Ski Hut	Communications
314 YOSEMITE NP	South Entrance	Ventilation
315 YOSEMITE NP	Sunrise Backpacker	Restroom Power
316 YOSEMITE NP	Sunrise High Sierra Camp	Facility Power
317 YOSEMITE NP	Sunrise High Sierra Camp	Facility Power
318 YOSEMITE NP	Tamarac Flat Campground B 6240	Vent Fan for Vault

319 YOSEMITE NP	Tamarac Flat Campground B 6241	Vent Fan for Vault
320 YOSEMITE NP	Tamarac Flat Campground B 6242	Vent Fan for Vault
321 YOSEMITE NP	Tamarac Flat Campground B 6243	Vent Fan for Vault
322 YOSEMITE NP	Voglesang Backpacker Cg	Restroom Power
323 YOSEMITE NP	Voglesang High Sierra Camp	Restroom Power
324 YOSEMITE NP	Yosemite Creek Cg B 6280	Vent Fan for Vault
325 YOSEMITE NP	Yosemite Creek Cg B 6281	Vent Fan for Vault
326 YOSEMITE NP	Yosemite Creek Cg B 6282	Vent Fan for Vault
327 YOSEMITE NP	Yosemite Creek Cg B 6283	Vent Fan for Vault
328 YOSEMITE NP	Yosemite Creek Cg B 6284	Vent Fan for Vault
329 YUKON CHARLEY RIVERS NP	Ben Creek Airstrip	Raws Weather St
330 YUKON CHARLEY RIVERS NP	Eagle Headquarters	Weather Station
331 YUKON CHARLEY RIVERS NP	Hillard Peak Repeater Site	Communications
332 YUKON CHARLEY RIVERS NP	Kathiel Mountain	Communications
333 YUKON CHARLEY RIVERS NP	Twin Mountain	Communications
334 YUKON CHARLEY RIVERS NP	Yukon Peak	Communications
335 ZION NP	Canyon Junction Bridge	Monitoring
336 ZION NP	Lava Point Cabin	Residence Power

Appendix B

APPLICATION	PARK	LOCATION	ESTIMATE
1 Amphitheater Lighting/a-v Equip.	ARCHES NP	Devils Garden	\$12,000
2 Amphitheater Lighting/a-v Equip	BIGHORN CANYON NRA	Garrys Landing Trail Creek	\$12,000
3 Amphitheater Lighting/a-v Equip	CARLSBAD CAVERNS NP	Bat Flight Amphitheater	\$18,000
4 Amphitheater Lighting/a-v Equip	CHAMIZAL NMEM	Park Grounds	\$24,000
5 Amphitheater Lighting/a-v Equip	CRATERS OF THE MOON N	Campground	\$12,000
6 Amphitheater Lighting/a-v Equip	GREAT BASIN NP	Lehman Creek Campground	\$12,000
7 Amphitheater Lighting/a-v Equip	GREAT BASIN NP	Wheeler Peak Campground	\$12,000
8 Amphitheater Lighting/a-v Equip	LASSEN VOLCANIC NP	Butte Lake Campground	\$12,000
9 Amphitheater Lighting/a-v Equip	LASSEN VOLCANIC NP	Summit Lake Campground	\$12,000
10 Amphitheater Lighting/a-v Equip	MOORES CREEK NB	Historic Bridge Site	\$12,000
11 Amphitheater Lighting/a-v Equip	NAVAJO NM	Development Area	\$12,000
12 Amphitheater Lighting/a-v Equip	NORTH CASCADES NP	Hozomeen Campground	\$12,000
13 Amphitheater Lighting/a-v Equip	ORGAN PIPE CACTUS NM	Campground Hq	\$18,000
14 Amphitheater Lighting/a-v Equip	SANTA FE NAT'L HISTORIC	Trails (4 Locations)	\$47,000
15 Amphitheater Lighting/a-v Equip	SCOTTS BLUFF NM	Amphitheater	\$12,000
16 Amphitheater Lighting/a-v Equip	WHISKEY-SHASTA-T	Oak Bottom	\$18,000
17 Amphitheater Lighting/a-v Equip	WHITE SANDS NM	Contact Station	\$12,000
18 Amphitheater Lighting/a-v Equip	WHITE SANDS NM	Program Site	\$18,000
19 Amphitheater Lighting/a-v Equip	WOLF TRAP FARM PARK-P	Filene Center	\$119,000
20 Amphitheater Lighting/a-v Equip	PETERSBURG NB	Main Unit Five Forks	\$1,000
21 Audio Station, Interpretive	WILSON'S CREEK NB	Bloody Hill	\$1,000
22 Audio Station, Interpretive	WILSON'S CREEK NB	Price/Pulaski	\$1,000
23 Audio Station, Interpretive	WILSON'S CREEK NB	Ray House	\$1,000
24 Audio Station, Interpretive	WILSON'S CREEK NB	Sigel's Final Position	\$1,000
25 Audio Station, Wayside	BIG HOLE NB	Battle Overlook	\$1,000
26 Audio Station, Wayside	BIG HOLE NB	Howitzer Site	\$1,000
27 Audio Station, Wayside	BIG HOLE NB	Nez Perce Camp	\$1,000
28 Audio Station, Wayside	BIG HOLE NB	Nez Perce Trail	\$1,000
29 Audio Station, Wayside	BIG HOLE NB	Siege Area	\$1,000
30 Audio Station, Wayside	BIG HOLE NB	Soldier Monument	\$1,000
31 Audio Station, Wayside	GEORGE WASHINGTON BP	Burial Ground	\$1,000

32 Audio Station, Wayside	RICHMOND NBP	Throughout the Park	\$12,000
33 Audio Tour Guide	CARLSBAD CAVERNS NP	Cavern	\$4,000
34 Augment Diesel Power System	LASSEN VOLCANIC NP	Butte Lake Campground	\$100,000
35 Augment Diesel Power System	LASSEN VOLCANIC NP	Drakesbad Guest Ranch	\$59,000
36 Augment Diesel Power System	YUKON CHARLEY RIVERS N	Coal Creek Camp	\$82,000
37 Augment Diesel Power System	NORTH CASCADES NP	Hozomeen Campground	\$27,000
38 Battery Charger	BALTIMORE-WASHINGTON	Parkway	\$1,000
39 Battery Charger	CAPE HATTERAS NS	Fort Raleigh Waterplant	\$1,000
40 Battery Charger	CAPE HATTERAS NS	Hatteras Island Fire Cache	\$1,000
41 Battery Charger	CAPE HATTERAS NS	Ocracoke Maintenance Shop	\$1,000
42 Battery Charger	PRINCE WILLIAM FOREST P	Maint. Yard	\$1,000
43 Comfort Station	MORRISTOWN NHP	Maintenance Area	\$14,000
44 Comfort Station	PECOS NM	Backcountry Trails	\$14,000
45 Comfort Station	PECOS NM	Gateway Overlook	\$7,000
46 Comfort Station	PECOS NM	Glorieta Kiosk	\$14,000
47 Comfort Station	PECOS NM	Parking Tp	\$7,000
48 Comfort Station	PECOS NM	Ruins Picnic Area	\$7,000
49 Communications	ACADIA NP	Cadillac Mt	\$505,000
50 Communications	ACADIA NP	Isle An Haut	\$17,000
51 Communications	BALTIMORE-WASHINGTON	Parkway	\$4,000
52 Communications	BALTIMORE-WASHINGTON	Parkway	\$4,000
53 Communications	BIG CYPRESS NPRES	Oasis Ranger Station	\$17,000
54 Communications	BIG HOLE NB	Entrance	\$17,000
55 Communications	BIGHORN CANYON NRA	South Unit	\$17,000
56 Communications	BRYCE CANYON NP	Far View Point	\$8,000
57 Communications	BRYCE CANYON NP	Rainbow Point	\$8,000
58 Communications	CANYONLANDS NP	Maze District	\$8,000
59 Communications	CAPE COD NS	Marconi Water Tower	\$33,000
60 Communications	CASA GRANGE NM	Vc Audio Tape Station	\$2,000
61 Communications	CATOCTIN MOUNTAIN PAR	Gym	\$6,000
62 Communications	CORONADO NMEM	Montezuma Pass	\$17,000
63 Communications	CRATER LAKE NP	Cleetwood Cove Trailhead	\$8,000

64 Communications	CRATER LAKE NP	North Entrance Station	\$8,000
65 Communications	CUMBERLAND GAP NHP	Pinnacle	\$33,000
66 Communications	CURECANTI NRA	Blue Mesa Reservoir	\$17,000
67 Communications	DENALI NP	Cantwell Area	\$33,000
68 Communications	EFFIGY MOUNDS NM	Radio Tower Pikes Peak	\$17,000
69 Communications	EVERGLADES NP	Dry Tortugas/Ft. Jefferson	\$25,000
70 Communications	EVERGLADES NP	Various Repeater Stations	\$83,000
71 Communications	FIRE ISLAND NS	Lighthouse & Annex	\$17,000
72 Communications	FORT STANWIX NM	Maintenance Building	\$17,000
73 Communications	GLACIER NP	Belly River Ranger Station	\$17,000
74 Communications	GLACIER NP	Bowman Ranger Station	\$17,000
75 Communications	GLACIER NP	Cutbank Ranger Station	\$17,000
76 Communications	GLACIER NP	Granite Park Chalet	\$17,000
77 Communications	GLACIER NP	Kintia Ranger Station	\$17,000
78 Communications	GLACIER NP	Logan Pass Visitor Center	\$33,000
79 Communications	GLACIER NP	Logging Ranger Station	\$17,000
80 Communications	GLACIER NP	Pole Bridge Ranger Station	\$33,000
81 Communications	GLACIER NP	Sperry Chalet	\$17,000
82 Communications	GLACIER NP	Waterton Ranger Station	\$25,000
83 Communications	GOLDEN GATE NRA	Mt Tam	\$41,000
84 Communications	GRAND CANYON NP	Pasture Washington South Rim	\$17,000
85 Communications	GRAND TETON NP	Backcountry Sites	\$17,000
86 Communications	GRAND TETON NP	Cascade Canyon Patrol Cabin	\$17,000
87 Communications	GRAND TETON NP	Lower Saddle	\$17,000
88 Communications	GRAND TETON NP	Tac Command Post	\$17,000
89 Communications	GREAT BASIN NP	Lehman Creek Campground	\$17,000
90 Communications	GREAT BASIN NP	South Of Park	\$17,000
91 Communications	GREAT BASIN NP	West Of Park	\$17,000
92 Communications	GREAT BASIN NP	Wheeler Peak Campground	\$17,000
93 Communications	GREAT SMOKY MOUNTAIN	Chimneys Picnic Area	\$17,000
94 Communications	GREAT SMOKY MOUNTAIN	Clingmans Dome Parking Area	\$17,000
95 Communications	GUADALUPE MOUNTAINS N	Pine Backcountry Cabin	\$17,000

96 Communications	GUADALUPE MONTAINS N	Pratt Lodge	\$17,000
97 Communications	GUADALUPE MONTAINS N	Second Repeater Site	\$33,000
98 Communications	KATMAI NP	Aniakchak	\$33,000
99 Communications	KATMAI NP	Mountain Top Repeaters	\$33,000
100 Communications	KENAI FJORDS NP	Aialik Bay Ranger Station	\$33,000
101 Communications	KENAI FJORDS NP	Exit Glacier Cabins	\$33,000
102 Communications	KENAI FJORDS NP	Nuka Bay Ranger Station	\$33,000
103 Communications	KNIFE RIVER INDAIN VILLA	Radio Shack	\$17,000
104 Communications	LAKE CLARK NP	Chitnabay	\$33,000
105 Communications	LAKE CLARK NP	Crescent Lake	\$33,000
106 Communications	LAKE MEAD NRA	Boulose Beach	\$4,000
107 Communications	LAKE MEAD NRA	Callville Bay	\$4,000
108 Communications	LAKE MEAD NRA	Cottonwood	\$4,000
109 Communications	LAKE MEAD NRA	Echo Bay	\$8,000
110 Communications	LAKE MEAD NRA	Katherine	\$4,000
111 Communications	LAKE MEAD NRA	Meadview	\$17,000
112 Communications	LAKE MEAD NRA	Overton Beach	\$4,000
113 Communications	LAKE MEAD NRA	Princess Cove	\$4,000
114 Communications	LAKE MEAD NRA	Temple Bar	\$8,000
115 Communications	LAKE MEAD NRA	Willow Beach	\$4,000
116 Communications	MORRISTOWN NHP	Museum	\$17,000
117 Communications	MORRISTOWN NHP	Visitor Center	\$17,000
118 Communications	NAVAJO NM	Development Area	\$17,000
119 Communications	NAVAJO NM	Keet Seel Ranger Station	\$17,000
120 Communications	NEZ PERCE NHP	Buffalo Eddy	\$8,000
121 Communications	NEZ PERCE NHP	Whitebird Site	\$8,000
122 Communications	OLYMPIC NP	Dosewallips	\$25,000
123 Communications	OLYMPIC NP	Graves Creek Ranger Station	\$25,000
124 Communications	OLYMPIC NP	North Fork Ranger Station	\$25,000
125 Communications	OLYMPIC NP	Queets Ranger Station	\$25,000
126 Communications	OLYMPIC NP	Staircase	\$25,000
127 Communications	PEA RIDGE NMP	Visitor Center Complex	\$8,000

128 Communications	PECOS NM	Shooting Towers	\$17,000
129 Communications	PETRIFIED FOREST NP	Ranger Office	\$8,000
130 Communications	PICTURED ROCKS NL	Au Sable Light Station	\$17,000
131 Communications	PINNACLES NM	Chaparral West District	\$17,000
132 Communications	PRINCE WILLIAM FOREST P	Repeater Station	\$17,000
133 Communications	REDWOODS NM	Howland Hill Outdoor School	\$17,000
134 Communications	REDWOODS NM	Park-Wide	\$17,000
135 Communications	SEQUOIA NP	14 Back Country Ranger Stn	\$116,000
136 Communications	SEQUOIA NP	Crystal Cave	\$17,000
137 Communications	SEQUOIA NP	Hole in the Wall	\$17,000
138 Communications	SEQUOIA NP	Pear Lake Ranger Station	\$17,000
139 Communications	SEQUOIA NP	South Fork Campground	\$8,000
140 Communications	THEODORE ROOSEVELT N	North And South Units	\$70,000
141 Communications	TONTO NATIONAL MONUM	Entrance/Park General	\$17,000
142 Communications	TONTO NATIONAL MONUM	Lower Ruins	\$17,000
143 Communications	TONTO NATIONAL MONUM	Upper Ruins	\$17,000
144 Communications	TUMACACORI NM	Calabazas Mission	\$17,000
145 Communications	TUMACACORI NM	Guevavi Mission	\$17,000
146 Communications	WHISKEYTOWN-SHASTA-T	South Fork Mountain	\$17,000
147 Communications	WHITE SANDS NM	Contact Station	\$8,000
148 Communications	YELLOWSTONE NP	Beartooth	\$17,000
149 Communications	YELLOWSTONE NP	Parkwide	\$59,000
150 Communications	YOSEMITE NP	Crane Flat Developed Area	\$17,000
151 Communications	YOSEMITE NP	Lake Eleanor Ranger Station	\$33,000
152 Communications	YOSEMITE NP	Wawona Point Repeater	\$19,000
153 Communications	YOSEMITE NP	White Wolf Developed Area	\$17,000
154 Communications	YUKON CHARLEY RIVERS N	Coal Creek Camp	\$33,000
155 Composting/Pit Toilet Fan	ASSATEAGUE ISLAND NS	Composting Toilets	\$2,000
156 Composting/Pit Toilet Fan	BIGHORN CANYON NRA	Barry's Landing Trail Creek	\$6,000
157 Composting/Pit Toilet Fan	CAPE COD NS	Great Island Picnic Area	\$2,000
158 Composting/Pit Toilet Fan	CAPE COD NS	Herring Cove Beach	\$2,000
159 Composting/Pit Toilet Fan	CAPITOL REEF NP	Hickman Bridge Trailhead	\$2,000

160 Composting/Pit Toilet Fan	GATEWAY NRA	Fort Tilden	\$2,000
161 Composting/Pit Toilet Fan	GATEWAY NRA	Great Kill Marina	\$2,000
162 Composting/Pit Toilet Fan	GATEWAY NRA	Sandy Hook	\$2,000
163 Composting/Pit Toilet Fan	GRAND CANYON NP	Compost Toilet Rim Locations	\$13,000
164 Composting/Pit Toilet Fan	GRAND CANYON NP	Compost Toilets-inner Canyon	\$9,000
165 Composting/Pit Toilet Fan	GUADALUPE MOUNTAIN N	Pine Backcountry Cabin	\$2,000
166 Composting/Pit Toilet Fan	LASSEN VOLCANIC NP	Drakesbad Guest Ranch	\$2,000
167 Composting/Pit Toilet Fan	OZAARK NSR	Parkwide Restroom Exhausts	\$21,000
168 Composting/Pit Toilet Fan	REDWOODS NM	Park-Wide	\$2,000
169 Elect. Vehicle Recharger Station	AZTEC RUINS NM	Maintenance Area	\$23,000
170 Elect. Vehicle Recharger Station	CARLSBAD CAVERNS NP	Maintenance Yard	\$23,000
171 Elect. Vehicle Recharger Station	CHAMIZAL NMEM	Park Grounds	\$23,000
172 Elect. Vehicle Recharger Station	CRATERS OF THE MOON N	Headquarters	\$23,000
173 Elect. Vehicle Recharger Station	FORT LARNED NHS	Maintenance Area	\$23,000
174 Elect. Vehicle Recharger Station	GRAND TETON NP	Tac Command Post	\$23,000
175 Elect. Vehicle Recharger Station	GUADALUPE MOUNTAINS N	Electric Vehicles (3)	\$23,000
176 Elect. Vehicle Recharger Station	HERBERT HOOVER NHS	B52 Maint Shop	\$23,000
177 Elect. Vehicle Recharger Station	KNIFE RIVER INDIAN VILLA	Cushman Electric Cart	\$23,000
178 Elect. Vehicle Recharger Station	MOORES CREEK NB	Visitor Center	\$23,000
179 Elect. Vehicle Recharger Station	SLEEPING BEAR DUNES NL	Dh Day Campground	\$23,000
180 Elect. Vehicle Recharger Station	SLEEPING BEAR DUNES NL	Platte River Campground	\$23,000
181 Electric Fence Charger	BADLANDS NP	Badlands Wilderness	\$2,000
182 Electric Fence Charger	GOLDEN SPIKE NHS	Headquarters	\$2,000
183 Electric Fence Charger	ROCKY MOUNTAIN NP	Horseshoe Park	\$2,000
184 Info/Traffic Warning Signs	BALTIMORE-WASHINGTON	Parkway	\$80,000
185 Info/Traffic Warning Signs	BIGHORN CANYON NRA	Black Canyon	\$4,000
186 Info/Traffic Warning Signs	BIGHORN CANYON NRA	Park Lane	\$4,000
187 Info/Traffic Warning Signs	BIGHORN CANYON NRA	Park Lane Docks/comf Station	\$4,000
188 Info/Traffic Warning Signs	CARLSBAD CAVERNS NP	Helicopter Landing Pad	\$4,000
189 Info/Traffic Warning Signs	CRATER LAKE NP	Cleetwood Cove Trailhead	\$4,000
190 Info/Traffic Warning Signs	CRATER LAKE NP	North Entrance Station	\$4,000
191 Info/Traffic Warning Signs	CRATERS OF THE MOON N	Campground	\$8,000

192 Info/Traffic Warning Signs	CURENCANTI NRA	Blue Mesa Reservoir (see Wk)	\$4,000
193 Info/Traffic Warning Signs	CURENCANTI NRA	Elk Creek Cg	\$4,000
194 Info/Traffic Warning Signs	GREAT BASIN NP	Baker Hw 487 & 488	\$4,000
195 Info/Traffic Warning Signs	HERBERT HOOVER NHS	Parkside Drive	\$8,000
196 Info/Traffic Warning Signs	KATMAI NP	Lake Camp	\$4,000
197 Info/Traffic Warning Signs	LAKE MEAD NRA	Temple Bar	\$8,000
198 Info/Traffic Warning Signs	LAKE MEAD NRA	Willow Beach	\$8,000
199 Info/Traffic Warning Signs	MINUTE MAN NHP	Parkwide	\$8,000
200 Info/Traffic Warning Signs	NEZ PERCE NHP	Whitebird Site	\$4,000
201 Info/Traffic Warning Signs	NORTH CASCADES NP	Hwy 20 Colonial Campground	\$4,000
202 Info/Traffic Warning Signs	NORTH CASCADES NP	Hwy 20 Gorge Creek	\$8,000
203 Info/Traffic Warning Signs	NORTH CASCADES NP	Hwy 20 Tunnel 1	\$8,000
204 Info/Traffic Warning Signs	ORGAN PIPE CACTUS NM	North Entrance	\$4,000
205 Info/Traffic Warning Signs	PADRE ISLAND NS	Park Road	\$8,000
206 Info/Traffic Warning Signs	TONTO NATIONAL MONUM	Entrance/Park General	\$4,000
207 Info/Traffic Warning Signs	ZION NP	Headquarters Area	\$8,000
208 Information Center	CAPITOL REEF NP	Burr Trail Notom Rd-(P)	\$18,000
209 Irrigation Control Valves (ea)	FJEFF NATIONAL EXPANSI	Gateway Arch Grounds	\$11,000
210 Lighting	BIG SOUTH FORK NR	Charit Creek Lodge	\$18,000
211 Lighting	FORT DAVIS NHS	B-68 Bally Bldg	\$6,000
212 Lighting	WILSON'S CREEK NB	Park General	\$15,000
213 Lighting, Basketball Court	CARLSBAD CAVERNS NP	Basketball Court/picnic Area	\$21,000
214 Lighting, Boat Ramp	LAKE MEREDITH NRA	Harbor Bay	\$8,000
215 Lighting, Building Dock	BIGHORN CANYON NRA	Park Lane Docks/comf Station	\$8,000
216 Lighting, Building/Shelter	BIGHORN CANYON NRA	Park Vault Toilets	\$11,000
217 Lighting, Building/Shelter	CURENCANTI NRA	Various-20	\$21,000
218 Lighting, Bulletin Board	GREAT BASIN NP	Lehman Creek Campground	\$3,000
219 Lighting, Bulletin Board	GREAT BASIN NP	Wheeler Peak Campground	\$3,000
220 Lighting, Cave System	CARLSBAD CAVERNS NP	Cavern	\$181,000
221 Lighting, Contact Station	GRAND CANYON NP	North Rim	\$3,000
222 Lighting, Dock	EVERGLADES NP	Dry Tortugas/Ft. Jefferson	\$9,000
223 Lighting, Emergency Restroom	GREAT BASIN NP	Lehman Creek Campground	\$2,000

224 Lighting, Emergency Restroom	GREAT BASIN NP	Wheeler Peak Campground	\$2,000
225 Lighting, Navigation on Bridge	NATCHEZ TRACE PKWY	Tenn River Bridge	\$16,000
226 Lighting, Recycle Station	NORTH CASCADES NP	Colonia Campground	\$7,000
227 Lighting, Recycle Station	NORTH CASCADES NP	Newhalem Campground	\$7,000
228 Lighting, Residential	CARLSBAD CAVERNS NP	Park Housing	\$38,000
229 Lighting, Security	PU'UHJONUA O HONAUNAU	Pu'uhonua Nhp	\$8,000
230 Lighting, Security	SITKA NHP	Curatorial	\$8,000
231 Lighting, Security	SITKA NHP	Rbh	\$8,000
232 Lighting, Security	SITKA NHP	Visitor Center	\$8,000
233 Lighting, Spotlights	LINCOLN BOYHHOD NMEM	Parkwide	\$23,000
234 Lighting, VC/Admin Bldg.	CARLSBAD CAVERNS NP	Visitor Center	\$6,000
235 Lighting, VC/Admin Bldg.	PUUKOHOLA HEIAU NHS	Pu'ukohola Heiau NHS	\$6,000
236 Lighting/interp Display	CARLSBAD CAVERNS NP	Underground Concession	\$23,000
237 Lighting; Path, Trials, Walkway	AZTEC RUINS NM	Visitor Center	\$6,000
238 Lighting; Path, Trials, Walkway	BADLANDS NP	Cedar Pass Developed Area	\$6,000
239 Lighting; Path, Trials, Walkway	BIG BEND NP	Amphitheater Walking	\$6,000
240 Lighting; Path, Trials, Walkway	CARLSBAD CAVERNS NP	Entrance Trail	\$6,000
241 Lighting; Path, Trials, Walkway	NORTH CASCADES NP	Stehekin District	\$6,000
242 Other	GEORGE WASHINGTON BP	Gift Shop	\$18,000
243 Other	GEORGE WASHINGTON BP	Visitor Center	\$18,000
244 Other	GUILFORD COURTHOUSE	Visitor Center	\$18,000
245 Other	SANTA MONICA MOUNTAIN	Circle X Ranch	\$18,000
246 Phone Patch	GREAT BASIN NP	Wheeler Peak Campground	\$4,000
247 Portable Power Stations	CAPE HATTERS NS	Parkwide	\$21,000
248 Portable Power Stations	CARLSBAD CAVERNS NP	Recreation Complex	\$21,000
249 Portable Power Stations	GREAT BASIN NP	Baker Creek Vip Site	\$21,000
250 Portable Power Stations	GREAT BASIN NP	Lehman Creek Campground	\$21,000
251 Portable Power Stations	GREAT BASIN NP	Wheeler Peak Campground	\$21,000
252 Portable Power Stations	HOMESTEAD NM OF AMERICA	Residence Quarters	\$21,000
253 Portable Power Stations	HOMESTEAD NM OF AMERICA	Residence Quarters	\$21,000
254 Portable Power Stations	HOMESTEAD NM OF AMERICA	Visitor Center	\$21,000
255 Portable Power Stations	PEA RIDGE NMP	Visitor Center Complex	\$21,000

256 Portable Power Stations	YELLOWSTONE NP	Clear Creek Fish Trap	\$21,000
257 Power Tools	SEQUOIA NP	Hole in the Wall	\$14,000
258 Quarters Areas	OLYMPIC NM	Dosewallips	\$39,000
259 Quarters Areas	OLYMPIC NM	Staircase	\$39,000
260 Ranger Station	LASSEN VOLCANIO NP	Butte Lake Campground	\$19,000
261 Remote Campground Development	ARCHES NP	Devils Garden	\$12,000
262 Remote Campground Development	BIGHORN CANYON NRA	Black Canyon	\$12,000
263 Remote Campground Development	BIGHORN CANYON NRA	Garrys Landing Trail Creek	\$12,000
264 Remote Campground Development	BRYCE CANYON NP	North Campground Info Board	\$6,000
265 Remote Campground Development	BUFFALO NR	Backcountry (13 each)	\$28,000
266 Remote Campground Development	CURECANTI NRA	Dry Gulch Cg	\$12,000
267 Remote Campground Development	CURECANTI NRA	East Elk Creek Cg	\$12,000
268 Remote Campground Development	CURECANTI NRA	Elk Creek Cg	\$12,000
269 Remote Campground Development	CURECANTI NRA	Gateview Cg	\$12,000
270 Remote Campground Development	CURECANTI NRA	Ponderosa Cg	\$12,000
271 Remote Campground Development	CURECANTI NRA	Red Creek Cg	\$12,000
272 Remote Campground Development	GREAT BASIN NP	Baker Creek Campground	\$12,000
273 Remote Campground Development	GREAT BASIN NP	Lehman Creek Campground	\$12,000
274 Remote Campground Development	GREAT BASIN NP	Snake Creek	\$12,000
275 Remote Campground Development	GREAT BASIN NP	Strawberry Creek	\$12,000
276 Remote Campground Development	GREAT BASIN NP	Wheeler Peak Campground	\$12,000
277 Remote Campground Development	GREAT SMOKY MOUNTAIN	Balsam Mountain	\$12,000
278 Remote Campground Development	GUADALUPE MOUNTAINS	Backcountry Toilets (10)	\$21,000
279 Remote Campground Development	KATMIA NP	Aniakchak	\$19,000
280 Remote Campground Development	KATMIA NP	Lake Camp	\$19,000
281 Remote Campground Development	KENAI FJORDS NP	Exit Glacier Cg	\$19,000
282 Remote Campground Development	LAKE MEAD MRA	Meadview	\$19,000
283 Remote Campground Development	LAKE MEAD MRA	Overton Beach	\$12,000
284 Remote Campground Development	LAKE MEAD MRA	Princess Cove	\$19,000
285 Remote Campground Development	LASSEN VOLCANIO NP	Butte Lake Campground (5 each)	\$24,000
286 Remote Campground Development	LASSEN VOLCANIO NP	Summit Lake Campground (2 each)	\$12,000
287 Remote Campground Development	NAVAJO NM	Development Area	\$12,000

288 Remote Campground Development	YOSEMITE NP	White Wolf Developed Area	\$12,000
289 Remote Facility Power	ACADIA NP	Isle An Haut	\$36,000
290 Remote Facility Power	ARCHES NP	Devils Garden	\$88,000
291 Remote Facility Power	BIG BEND NP	Basin Restrooms	\$12,000
292 Remote Facility Power	BIG BEND NP	Castolon	\$381,000
293 Remote Facility Power	BIG BEND NP	Chisos Basin	\$381,000
294 Remote Facility Power	BIG BEND NP	Packer Barn	\$6,000
295 Remote Facility Power	BIG BEND NP	Panther Junction	\$1,876,000
296 Remote Facility Power	BIG BEND NP	Persimmon Gap	\$41,000
297 Remote Facility Power	BIG BEND NP	Rio Grande Village	\$328,000
298 Remote Facility Power	BIGHORN CANYON NRA	South Unit	\$59,000
299 Remote Facility Power	CANYONLANDS NP	Maze District	\$293,000
300 Remote Facility Power	CAPITOL REEF NP	East Boundary Hwy 24 (P)	\$4,000
301 Remote Facility Power	CAPITOL REEF NP	Hickman Bridge Trailhead (P)	\$4,000
302 Remote Facility Power	CAPITOL REEF NP	West Boundary Hwy 24 (P)	\$4,000
303 Remote Facility Power	CATOCHTIN MOUNTAIN PAR	Catochtin Mt. Park Hog Rock	\$2,000
304 Remote Facility Power	CHANNEL ISLANDS NP	San Miguel Island	\$176,000
305 Remote Facility Power	CHANNEL ISLANDS NP	Santa Cruz Island	\$176,000
306 Remote Facility Power	CHANNEL ISLANDS NP	Santa Rosa Island	\$586,000
307 Remote Facility Power	CRATER LAKE NP	Cleetwood Cove Trailhead	\$18,000
308 Remote Facility Power	CURECANTI NRA	Blue Mesa Reservoir (see Wk)	\$1,000
309 Remote Facility Power	CURECANTI NRA	Various-20	\$12,000
310 Remote Facility Power	FIRE ISLAND NS	Lighthouse & Annex	\$205,000
311 Remote Facility Power	FIRE ISLAND NS	Old Inlet	\$41,000
312 Remote Facility Power	FIRE ISLAND NS	Sailors Haven	\$141,000
313 Remote Facility Power	FIRE ISLAND NS	Smith Point	\$117,000
314 Remote Facility Power	FIRE ISLAND NS	Talisman	\$96,000
315 Remote Facility Power	FIRE ISLAND NS	Watch Hill	\$279,000
316 Remote Facility Power	FORT DAVIS NHS	B-104 Church Camp	\$82,000
317 Remote Facility Power	FORT STANWIX NM	Maintenance Building	\$94,000
318 Remote Facility Power	GILA CLIFF DWELLINGS NM	Contact Station	\$23,000
319 Remote Facility Power	GILA CLIFF DWELLINGS NM	Residences	\$59,000

320 Remote Facility Power	GILA CLIFF DWELLINGS NM	Visitor Center	\$94,000
321 Remote Facility Power	GLACIER NP	Belly River Ranger Station	\$3,000
322 Remote Facility Power	GLACIER NP	Granite Park Chalet	\$4,000
323 Remote Facility Power	GLACIER NP	Sperry Chalet	\$1,000
324 Remote Facility Power	GLEN CANYON NRA	Bullfrog	\$1,759,000
325 Remote Facility Power	GLEN CANYON NRA	Halls Crossing	\$1,759,000
326 Remote Facility Power	GLEN CANYON NRA	Hite	\$1,173,000
327 Remote Facility Power	GOLDEN GATE NRA	Pedestrian Trails	\$6,000
328 Remote Facility Power	GRAND CANYON NP	Cottonwood R.S.	\$23,000
329 Remote Facility Power	GRAND CANYON NP	Pastures Washington South Rim	\$9,000
330 Remote Facility Power	GRAND TETON NP	Lower Saddle	\$3,000
331 Remote Facility Power	GUADALUPE MOUNTAINS N	Park Housing	\$56,000
332 Remote Facility Power	GUADALUPE MOUNTAINS N	Pine Backcountry Cabin	\$6,000
333 Remote Facility Power	GUADALUPE MOUNTAINS N	Pratt Lodge	\$12,000
334 Remote Facility Power	GUADALUPE MOUNTAINS N	West Sede Raws	\$12,000
335 Remote Facility Power	GULF ISLANDS NS	Horn Island	\$29,000
336 Remote Facility Power	GULF ISLANDS NS	Ship Island	\$53,000
337 Remote Facility Power	HALEAKALA NP	Kipahulu Maint Facility	\$106,000
338 Remote Facility Power	HALEAKALA NP	Kipahulu Ranger Station	\$82,000
339 Remote Facility Power	HAWAII VOLCANOES NP	Eruption Site	\$41,000
340 Remote Facility Power	ISLE ROYAL	Windigo	\$1,407,000
341 Remote Facility Power	JOSHUA TREE NM	Lost Horse	\$41,000
342 Remote Facility Power	KALOKO-HONOKOHAU NHP	Kaloko Comfort Station	\$53,000
343 Remote Facility Power	KALOKO-HONOKOHAU NHP	Kaloko Comfort Station	\$53,000
344 Remote Facility Power	KENAI FJORDS NP	Aialik Bay Ranger Station	\$14,000
345 Remote Facility Power	KENAI FJORDS NP	Coastal Public Use Cabins 4	\$29,000
346 Remote Facility Power	KENAI FJORDS NP	Exit Glacier Cabins	\$35,000
347 Remote Facility Power	KENAI FJORDS NP	Nuka Bay Ranger Station	\$12,000
348 Remote Facility Power	LAKE CLARK NP	Chitnabay	\$12,000
349 Remote Facility Power	LAKE CLARK NP	Crescent Lake	\$12,000
350 Remote Facility Power	LAKE CLARK NP	Twin & Telaquina Lakes	\$12,000
351 Remote Facility Power	LAKE MEAD NRA	Meadview	\$4,000

352 Remote Facility Power	LAKE MEAD NRA	Princess Cove	\$4,000
353 Remote Facility Power	LAKE MEAD NRA	Shivwits	\$26,000
354 Remote Facility Power	LAKE MEAD NRA	Temple Bar	\$4,000
355 Remote Facility Power	LAKE MEAD NRA	Willow Beach	\$2,000
356 Remote Facility Power	LASSEN VOLCANIC NP	Butte Lake Campground	\$352,000
357 Remote Facility Power	LASSEN VOLCANIC NP	Drakesbad Guest Ranch	\$76,000
358 Remote Facility Power	LASSEN VOLCANIC NP	Summit Lake Campground	\$41,000
359 Remote Facility Power	LITTLE BIGHORN BATTEFIELD	Reno-benteen Site	\$6,000
360 Remote Facility Power	MAMMOTH CAVE NP	Backcountry	\$18,000
361 Remote Facility Power	MESA VERDE NP	Wetherill Mesa	\$18,000
362 Remote Facility Power	MORRISTOWN NHP	Maintenance Area	\$12,000
363 Remote Facility Power	MORRISTOWN NHP	Museum	\$12,000
364 Remote Facility Power	MORRISTOWN NHP	Visitor Center	\$12,000
365 Remote Facility Power	NAVAJO NM	Keet Seel Ranger Station	\$52,000
366 Remote Facility Power	NORTH CASCADES NP	Ross Lake - Lightning Float	\$18,000
367 Remote Facility Power	NORTH CASCADES NP	Stehekin District	\$23,000
368 Remote Facility Power	OLYMPIC NP	Deer Park Ranger Station	\$82,000
369 Remote Facility Power	OLYMPIC NP	Dosewallips	\$82,000
370 Remote Facility Power	OLYMPIC NP	Graves Creek Ranger Station	\$82,000
371 Remote Facility Power	OLYMPIC NP	North Fork Ranger Station	\$70,000
372 Remote Facility Power	OLYMPIC NP	Queets Ranger Station	\$82,000
373 Remote Facility Power	OLYMPIC NP	Staircase	\$82,000
374 Remote Facility Power	PADRE ISLAND NS	Down Patrol Facility	\$26,000
375 Remote Facility Power	PICTURED ROCKS NL	Au Sable Light Station	\$199,000
376 Remote Facility Power	PINNACLES NM	Chaparral West District	\$150,000
377 Remote Facility Power	REDWOODS NM	Howland Hills Outdoor School	\$35,000
378 Remote Facility Power	SAGUARO NM	Manning Cabin	\$18,000
379 Remote Facility Power	SALINAS PUEBLO MISSION	Abo Visitor Center	\$106,000
380 Remote Facility Power	SALINAS PUEBLO MISSION	Gran Quivira Visitor Center	\$106,000
381 Remote Facility Power	SALINAS PUEBLO MISSION	Quarai Visitor Center	\$106,000
382 Remote Facility Power	SEQUOIA NP	14 Back Country Ranger Station	\$131,000
383 Remote Facility Power	SEQUOIA NP	Hole in the Wall	\$35,000

384 Remote Facility Power	SEQUOIA NP	Pear Lake Ranger Station	\$20,000
385 Remote Facility Power	SEQUOIA NP	South Fork Campground	\$26,000
386 Remote Facility Power	SLEEPING BEAR DUNES NL	Boales Farm	\$223,000
387 Remote Facility Power	SLEEPING BEAR DUNES NL	South Manitou Island	\$519,000
388 Remote Facility Power	THEODORE ROOSEVLET N	South Unit Group Camping	\$18,000
389 Remote Facility Power	TONTO NATIONAL MONUMENT	Entrance/Park General	\$18,000
390 Remote Facility Power	TONTO NATIONAL MONUMENT	Lower Ruins	\$23,000
391 Remote Facility Power	TONTO NATIONAL MONUMENT	Upper Ruins	\$23,000
392 Remote Facility Power	TUMACANCORI NM	Calabazas Mission	\$59,000
393 Remote Facility Power	TUMACANCORI NM	Guevavi Mission	\$59,000
394 Remote Facility Power	WHITE SANDS NM	Contact Station	\$12,000
395 Remote Facility Power	YELLOWSTONE NP	Beartooth	\$141,000
396 Remote Facility Power	YELLOWSTONE NP	Clear Creek Fish Trap	\$47,000
397 Remote Facility Power	YELLOWSTONE NP	Lamar (100KWH/Day)	\$188,000
398 Remote Facility Power	YOSEMITE NP	Bridalveil Falls Restroom	\$18,000
399 Remote Facility Power	YOSEMITE NP	Cathedral Beach Restroom	\$18,000
400 Remote Facility Power	YOSEMITE NP	Church Bowl Restroom	\$18,000
401 Remote Facility Power	YOSEMITE NP	Crane Flat Developed Area	\$733,000
402 Remote Facility Power	YOSEMITE NP	Devils Elbow Restroom	\$18,000
403 Remote Facility Power	YOSEMITE NP	El Capitan Restroom	\$18,000
404 Remote Facility Power	YOSEMITE NP	Lake Eleanor Ranger Station	\$94,000
405 Remote Facility Power	YOSEMITE NP	Lambert Dome Restrooms	\$18,000
406 Remote Facility Power	YOSEMITE NP	Merced L. Ranger Station	HYDRO
407 Remote Facility Power	YOSEMITE NP	Mirror Lake Restroom	\$18,000
408 Remote Facility Power	YOSEMITE NP	Muir Tree Restroom	\$18,000
409 Remote Facility Power	YOSEMITE NP	Sentinel Beach Restroom	\$18,000
410 Remote Facility Power	YOSEMITE NP	Swinging Bridge Restroom	\$18,000
411 Remote Facility Power	YOSEMITE NP	Tenaya East Water System	\$82,000
412 Remote Facility Power	YOSEMITE NP	Valley View Restroom	\$18,000
413 Remote Facility Power	YOSEMITE NP	White Wold Developed Area	\$821,000
414 Remote Facility Power	YUKON CHARLEY RIVERS N	Slavens Cabin	\$12,000
415 Remote Facility Power	ZION NP	Fire Pit Knoll Cabin	\$18,000

416 Remote Facility Power	ZION NP	Lower Kolob Terrace Cabin	\$18,000
417 Residential	CAPITOL REEF NP	Peek-a-boo Area (P)	\$39,000
418 Residential	CHANNEL ISLANDS NP	Santa Rosa Island (4ea)	\$158,000
419 Residential	NAVAJO NM	Housing Area	\$39,000
420 Resource Monitoring Equipment	PINNACLES NM	Chaparral West District	\$39,000
421 Resource Monitoring Equipment	CHESAPEAKE & OHIO CAN	Parkwide	\$3,000
422 Resource Monitoring Equipment	CONGAREE SWAMP NM	Congaree River	\$3,000
423 Resource Monitoring Equipment	CORONADO NMEM	Parkwide	\$3,000
424 Resource Monitoring Equipment	DENALI NP	Mt Mckinley Met Station	\$3,000
425 Resource Monitoring Equipment	DENALI NP	Rock Creek Lower Site	\$3,000
426 Resource Monitoring Equipment	DENALI NP	Rock Creek Treeline Site	\$3,000
427 Resource Monitoring Equipment	EVERGLADES NP	Dry Tortugas/Ft. Jefferson	\$3,000
428 Resource Monitoring Equipment	EVERGLADES NP	Various	\$3,000
429 Resource Monitoring Equipment	GOLDEN GATE NRA	Mt Tam	\$3,000
430 Resource Monitoring Equipment	GRAND CANYON NP	Compost Toilet Rim Locations	\$3,000
431 Resource Monitoring Equipment	GRAND CANYON NP	Compost Toilets-Inner Canyon	\$3,000
432 Resource Monitoring Equipment	GRAND CANYON NP	Pasture Washington South Rim	\$3,000
433 Resource Monitoring Equipment	GRAND TETON NP	Lower Saddle	\$3,000
434 Resource Monitoring Equipment	GRAND TETON NP	Parkwide	\$3,000
435 Resource Monitoring Equipment	GUADALUPE MOUNTAINS N	West Sede Raws	\$3,000
436 Resource Monitoring Equipment	HAWAII VOLCANOES NP		\$3,000
437 Resource Monitoring Equipment	HOT SPRINGS NP	Administration Building	\$3,000
438 Resource Monitoring Equipment	KATMAI NP	Aniakchak	\$3,000
439 Resource Monitoring Equipment	KENAI FJORDS NP	Aialik Bay Ranger Station	\$3,000
440 Resource Monitoring Equipment	KENAI FJORDS NP	Exit Glacier Cabin	\$3,000
441 Resource Monitoring Equipment	KENAI FJORDS NP	Nuka Bay Ranger Station	\$3,000
442 Resource Monitoring Equipment	KNIFE RIVER INDIAN VILLA	Proposed Weather Station	\$3,000
443 Resource Monitoring Equipment	LAKE MEAD NRA	Echo Bay Katherine	\$3,000
444 Resource Monitoring Equipment	LAKE MEAD NRA	Katherine	\$3,000
445 Resource Monitoring Equipment	LAKE MEAD NRA	Shivwits	\$3,000
446 Resource Monitoring Equipment	MAMMOTH CAVE NP	Backcountry	\$5,000
447 Resource Monitoring Equipment	MINUTE MAN NHP	Parkwide	\$3,000

448 Resource Monitoring Equipment	MOORES CREEK NB	Historic Bridge Site	\$3,000
449 Resource Monitoring Equipment	MORRISTOWN NHP	Maintenance Area	\$3,000
450 Resource Monitoring Equipment	NORTH CASCADES NP	Stehekin District	\$3,000
451 Resource Monitoring Equipment	TIMPANOGOS CAVE NM	Air Quality Site	\$3,000
452 Resource Monitoring Equipment	TIMPANOGOS CAVE NM	Cliffs Behind Admin Building	\$3,000
453 Resource Monitoring Equipment	TONTO NATIONAL MONUMENT	Entrance/Park General	\$3,000
454 Resource Monitoring Equipment	TONTO NATIONAL MONUMENT	Lower Ruins	\$3,000
455 Resource Monitoring Equipment	TONTO NATIONAL MONUMENT	Upper Ruins	\$3,000
456 Resource Monitoring Equipment	TUMACACORI NM	Calabazas Mission	\$3,000
457 Resource Monitoring Equipment	TUMACACORI NM	Guevavi Mission	\$3,000
458 Resource Monitoring Equipment	YELLOWSTONE NP	Parkwide	\$12,000
459 Resource Monitoring Equipment	YUKON CHARLEY RIVERS N	Various Locations	\$18,000
460 Restroom Lighting, Pwr, or Venting	CAPE HATTERAS NS	Coquina Beach Bathhouse	\$15,000
461 Restroom Lighting, Pwr, or Venting	CAPE HATTERAS NS	Pea Island Overlook	\$7,000
462 Restroom Lighting, Pwr, or Venting	GREAT BASIN NP	Lehman Creek Campground	\$2,000
463 Restroom Lighting, Pwr, or Venting	GERVERT HOOVER NHS	B68 Comfort Station	\$41,000
464 Restroom Lighting, Pwr, or Venting	ORGANPIPE CACTUS NM	Campground Hq	\$8,000
465 Restroom Lighting, Pwr, or Venting	SLEEPING BEAR DUNES NL	Esch Road	\$8,000
466 Restroom Lighting, Pwr, or Venting	SLEEPING BEAR DUNES NL	North Bar Lake	\$9,000
467 Restroom Lighting, Pwr, or Venting	SLEEPING BEAR DUNES NL	Outpost Campground	\$9,000
468 Restroom Lighting, Pwr, or Venting	SLEEPING BEAR DUNES NL	Peterson Road	\$9,000
469 Restroom Lighting, Pwr, or Venting	SLEEPING BEAR DUNES NL	Trails End	\$9,000
470 Restroom /Rest Area	CAPITOL REEF NP	East Boundary Hwy 24	\$18,000
471 Restroom /Rest Area	CAPITOL REEF NP	West Boundary Hwy 24	\$18,000
472 Restroom /Rest Area	CORONADO NMEM	Parkwide	\$18,000
473 Restroom /Rest Area	YOSEMITE NP	Tamarak Flat Cg (4 Each)	\$18,000
474 Restroom /Rest Area	YOSEMITE NP	Tuolumne Meadows Cg (5 Each)	\$18,000
475 Restroom /Rest Area	YOSEMITE NP	Yosemite Creek Cg (5 Each)	\$18,000
476 Sewage Lift Station	COLONIAL NHP	Jamestown Visitor Center	\$21,000
477 Sewage Lift Station	COLONIAL NHP	Yorktown Maintenance	\$12,000
478 Sewage Lift Station	GUADALUPE MOUNTAINS N	Mckittrick Canyon Vc	\$14,000
479 Sewage System	FIRE ISLAND NS	Lighthouse & Annex	\$23,000

480 Sewage System	FIRE ISLAND NS	Sailors Haven	\$29,000
481 Sewage System	FIRE ISLAND NS	Talisman	\$26,000
482 Sewage System	FIRE ISLAND NS	Watch Hill	\$35,000
483 Street Lights	CAPE HATTERAS NS	Canadian Hole	\$13,000
484 Street Lights	CAPITOL REEF NP	East Boundary Hwy 24- (P)	\$6,000
485 Street Lights	CAPITOL REEF NP	West Boundary Hwy 24 (P)	\$6,000
486 Street Lights	CAPULIN VOLCANO NM	Maintenance Yard	\$13,000
487 Street Lights	CARLSBAD CAVERNS NP	Housing Area	\$26,000
488 Street Lights	CATOCTIN MOUNTAIN PAR	Catoctin Mt. Park Hog Rock	\$26,000
489 Street Lights	CATOCTIN MOUNTAIN PAR	Gym	\$26,000
490 Street Lights	CATOCTIN MOUNTAIN PAR	Round Meadow	\$39,000
491 Street Lights	CHAMIZAL NMEM	Park Grounds	\$129,000
492 Street Lights	CORONADO NMEM	Maintenance Yard	\$6,000
493 Street Lights	COULEE DAM NRA	Evans Launch Ramp	\$6,000
494 Street Lights	COULEE DAM NRA	Giifford Launch Ramp	\$6,000
495 Street Lights	COULEE DAM NRA	Hunters Launch Rays	\$6,000
496 Street Lights	COULEE DAM NRA	LINCOLN Launch Ramp	\$6,000
497 Street Lights	CRATER LAKE NP	North Entrance Station	\$13,000
498 Street Lights	CRATERS OF THE MOON N	Headquarters	\$39,000
499 Street Lights	CUYAHOGA VALLEY NRA	B & U Parking Lot	\$26,000
500 Street Lights	CUYAHOGA VALLEY NRA	Cvc Parking Lot	\$45,000
501 Street Lights	CUYAHOGA VALLEY NRA	Duplexes Parking Lot	\$13,000
502 Street Lights	CUYAHOGA VALLEY NRA	Happy Days N. Parking Lot	\$39,000
503 Street Lights	CUYAHOGA VALLEY NRA	Headquarters Parking Lot	\$13,000
504 Street Lights	CUYAHOGA VALLEY NRA	Hines Hill Conference Ctr	\$19,000
505 Street Lights	CUYAHOGA VALLEY NRA	Homestead	\$6,000
506 Street Lights	CUYAHOGA VALLEY NRA	Hunt Farm Contact Station	\$13,000
507 Street Lights	CUYAHOGA VALLEY NRA	Indian Mound Trailhead	\$26,000
508 Street Lights	CUYAHOGA VALLEY NRA	Lock 39 Trailhead	\$26,000
509 Street Lights	CUYAHOGA VALLEY NRA	N.D. Ranger Station	\$6,000
510 Street Lights	CUYAHOGA VALLEY NRA	S.D. Ranger Station	\$13,000
511 Street Lights	CUYAHOGA VALLEY NRA	Vk Lake Parking Lot	\$52,000

512 Street Lights	CUYAHOGA VALLEY NRA	Vk Maintenance Lot	\$19,000
513 Street Lights	FORT CLASTSOP NMEM	Entrance Gate	\$6,000
514 Street Lights	LAKE MEAD NRA	Boulose Beach	\$193,000
515 Street Lights	LAKE MEAD NRA	Callville Bay	\$193,000
516 Street Lights	LAKE MEAD NRA	Cottonwood	\$19,000
517 Street Lights	LAKE MEAD NRA	Echo Bay	\$39,000
518 Street Lights	LAKE MEAD NRA	Katherine	\$39,000
519 Street Lights	LAKE MEAD NRA	Las Vegas Bay	\$129,000
520 Street Lights	LAKE MEAD NRA	Meadview	\$77,000
521 Street Lights	LAKE MEAD NRA	Overton Beach	\$64,000
522 Street Lights	LAKE MEAD NRA	Princess Cove	\$64,000
523 Street Lights	LAKE MEAD NRA	Temple Bar	\$64,000
524 Street Lights	LAKE MEAD NRA	Willow Beach	\$26,000
525 Street Lights	LAKE MEREDITH NRA	Chimney Hollow	\$13,000
526 Street Lights	LAKE MEREDITH NRA	Harbor Bay	\$13,000
527 Street Lights	LINCOLN BOYHOOD NMEM	Parkwide	\$32,000
528 Street Lights	MINUTE MAN NHP	Parkwide	\$26,000
529 Street Lights	MOORES CREEK NB	Patriots Hall	\$39,000
530 Street Lights	MOORES CREEK NB	Visitor Center	\$39,000
531 Street Lights	MORRISTOWN NHP	Visitor Center	\$26,000
532 Street Lights	NATCHEZ TRACE PKWY	Comfort Stations	\$64,000
533 Street Lights	NAVAJO NM	Development Area	\$19,000
534 Street Lights	NAVAJO NM	Housing Area	\$13,000
535 Street Lights	NEZ PERCE NHP	Buffalo Eddy	\$6,000
536 Street Lights	NEZ PERCE NHP	Spalding Headquarters	\$13,000
537 Street Lights	PIPESTONE NM	Parkwide	\$19,000
538 Street Lights	SAN FRANCISCO MARITIME	Aquatic/Victoman Park	\$77,000
539 Street Lights	SEQUOIA NP	Hole In The Wall	\$13,000
540 Street Lights	VANDERBILT MANSION NH	Elro Nhs Historic Core	\$52,000
541 Street Lights	VANDERBILT MANSION NH	Hofr Nhs Parking Lot	\$52,000
542 Street Lights	VANDERBILT MANSION NH	Vama Nhs Parking Lot	\$39,000
543 Street Lights	WHISKEYTOWN-SHASTA-T	Hq, Brandy, Oak Bottom, Whis	\$129,000

544 Street Lights	WOLF TRAP FARM PARK-P	Filene Center	\$129,000
545 Street Lights	YELLOWSTONE NP	Clear Creek Fish Trap	\$19,000
546 Tis Transmitter	CARLSBAD CAVERNS NP	Tis Transmitter	\$4,000
547 Tis Transmitter	CRATER LAKE NP	Annie Springs	\$4,000
548 Traffic Arrow Board	BALTIMORE-WASHINGTON	Parkway	\$7,000
549 Traffic Counter	BLACK CANYON OT GUNNI	North Rim	\$1,000
550 Traffic Counter	BLACK CANYON OT GUNNI	South Rim	\$1,000
551 Traffic Counter	CARLSBAD CAVERNS NP	Traffic Counters	\$1,000
552 Traffic Counter	EFFIGY MOUNDS NM	Sny Magill	\$1,000
553 Traffic Counter	GREAT BASIN NP	Snake Creek Canyon Road	\$4,000
554 Traffic Counter	GREAT BASIN NP	Strawberry Creek Canyon Rd	\$4,000
555 Traffic Counter	GREAT BASIN NP	Wheeler Peak Scenic Drive	\$4,000
556 Traffic Counter	KATMAI NP	Lake Camp	\$1,000
557 Traffic Counter	MESA VERDE NP	Hovenweep	\$1,000
558 Traffic Counter	NATCHEZ TRACE PKWY	Mp 415	\$4,000
559 Traffic Counter	PADRE ISLAND NS	Park Road	\$1,000
560 Traffic Counter	PRINCE WILLIAM FOREST	Traffic Counters	\$1,000
561 Water Filter	GREAT BASIN NP	Lehman Creek Campground	\$9,000
562 Water Filter	GREAT BASIN NP	Wheeler Peak Campground	\$9,000
563 Water Pumping	ACADIA NP	Cadillac Mt	See Remote Communication
564 Water Pumping	ACADIA NP	Isle An Haut	See Remote Facility Pwr
565 Water Pumping	BADLANDS NP	Badlands Wilderness	\$14,000
566 Water Pumping	BIG BEND NP	K-Bar Wells	\$76,000
567 Water Pumping	BIG BEND NP	Oak Springs	\$47,000
568 Water Pumping	BIG SOUTH FORK NR	Charit Creek Lodge	\$14,000
569 Water Pumping	BLUE RIDGE PKWY	Cascades Comfort Station	\$35,000
570 Water Pumping	BLUE RIDGE PKWY	Craggy Gardens Vc & Picnic A	\$48,000
571 Water Pumping	BLUE RIDGE PKWY	Waterrock Knob	\$43,000
572 Water Pumping	BRYCE CANYON NP	Yovempa Water System	\$21,000
573 Water Pumping	CANYONLANDS NP	Maze District	\$26,000
574 Water Pumping	CAPULIN VOLCANO NM	Well House	\$63,000
575 Water Pumping	CHAZIZAL NMEM	Park Grounds	\$88,000

576 Water Pumping	CHANNEL ISLAND NP	San Miguel Island	\$18,000
577 Water Pumping	CHANNEL ISLAND NP	Santa Rosa Island	\$106,000
578 Water Pumping	COLONIA NHP	Jamestown Visitor Center	\$27,000
579 Water Pumping	CUMBERLAND GAP NHP	Pinnacle	\$84,000
580 Water Pumping	CURECANTI NRA	Dry Gulch Cg	\$13,000
581 Water Pumping	CURECANTI NRA	East Elk Creek Cg	\$13,000
582 Water Pumping	CURECANTI NRA	Gateview Cg	\$13,000
583 Water Pumping	CURECANTI NRA	Ponderosa Cg	\$18,000
584 Water Pumping	CURECANTI NRA	Red Creek Cg	\$13,000
585 Water Pumping	DENALI NP	Savage Campground	\$27,000
586 Water Pumping	DENALI NP	Tekianika Campground	\$42,000
587 Water Pumping	DENALI NP	Wonderlake Campground	\$47,000
588 Water Pumping	FIRE ISLAND NS	Lighthouse & Annex	\$33,000
589 Water Pumping	FIRE ISLAND NS	Old Inlet	\$21,000
590 Water Pumping	FIRE ISLAND NS	Sailors Haven	\$59,000
591 Water Pumping	FIRE ISLAND NS	Smith Point	\$53,000
592 Water Pumping	FIRE ISLAND NS	Talisman	\$47,000
593 Water Pumping	FIRE ISLAND NS	Watch Hill	\$88,000
594 Water Pumping	FORT DAVIS NHS	Pump House	\$35,000
595 Water Pumping	GILA CLIFF DWELLINGS NM	Contact Station	\$9,000
596 Water Pumping	GILA CLIFF DWELLINGS NM	Residences	\$26,000
597 Water Pumping	GILA CLIFF DWELLINGS NM	Visitor Center	\$16,000
598 Water Pumping	GLACIER NP	Bowman Ranger Station	\$21,000
599 Water Pumping	GLACIER NP	Granite Park Chalet	\$26,000
600 Water Pumping	GLACIER NP	Sperry Chalet	\$6,000
601 Water Pumping	GRAND CANYON NP	Compost Toilet Rim Locations	\$7,000
602 Water Pumping	GRANT-KOHR'S RANCH NH	North Irrigation Pump (feas)	\$12,000
603 Water Pumping	GRANT-KOHR'S RANCH NH	South Irrigation Pump (feas)	\$12,000
604 Water Pumping	GUADALUPE MOUNTAINS N	Mckittrick Canyon Vc	\$16,000
605 Water Pumping	GUADALUPE MOUNTAINS N	Pratt Lodge	\$5,000
606 Water Pumping	HALEAKALA NP	Kipahulu Maint Facility	\$15,000
607 Water Pumping	JOSHUA TREE NM	Lost Horse	\$12,000

608 Water Pumping	KENAI FJORDS NP	Aialik Bay Ranger Station	\$7,000
609 Water Pumping	KENAI FJORDS NP	Coastal Public Use Cabins 4	\$12,000
610 Water Pumping	KENAI FJORDS NP	Exit Glacier Cabins	\$35,000
611 Water Pumping	KENAI FJORDS NP	Exit Glacier Cg	\$12,000
612 Water Pumping	KENAI FJORDS NP	Nuka Bay Ranger Station	\$7,000
613 Water Pumping	LASSEN VOLCANIC NP	Butte Lake Campground	\$38,000
614 Water Pumping	NAVAJO NM	Development Area	\$35,000
615 Water Pumping	NAVAJO NM	Housing Area	\$4,000
616 Water Pumping	OLYMPIC NM	Dosewallips	\$64,000
617 Water Pumping	OLYMPIC NM	Staircase	\$64,000
618 Water Pumping	OZARK NSR	Ebb & Flow Springs	\$9,000
619 Water Pumping	PECOS NM	Gateway Overlook	\$9,000
620 Water Pumping	PECOS NM	North Pasture	\$9,000
621 Water Pumping	PECOS NM	Trading Post Parking	\$9,000
622 Water Pumping	PICTURED ROCKS NL	Au Sable light Station	\$19,000
623 Water Pumping	PINNACLES NM	Chaparral West District	\$4,000
624 Water Pumping	REDWOODS NM	Howland Hill Outdoor School	\$25,000
625 Water Pumping	SALINAS PUEBLO MISSION	Abo Visitor Center	\$23,000
626 Water Pumping	SALINAS PUEBLO MISSION	Gran Quivira Visitor Center	\$23,000
627 Water Pumping	SALINAS PUEBLO MISSION	Quarai Visitor Center	\$23,000
628 Water Pumping	SEQUOIA NP	Hole In The Wall	\$21,000
629 Water Pumping	SLEEPING BEAR DUNES NL	Esch Road	\$16,000
630 Water Pumping	SLEEPING BEAR DUNES NL	North Bar Lake	\$16,000
631 Water Pumping	SLEEPING BEAR DUNES NL	Peterson Road	\$16,000
632 Water Pumping	SLEEPING BEAR DUNES NL	Trails End	\$16,000
633 Water Pumping	THEODORE ROOSEVELT N	North And South Backcountry	\$16,000
634 Water Pumping	TUMACACORI NM	Calabazas Mission	\$14,000
635 Water Pumping	TUMACACORI NM	Guevavi Mission	\$9,000
636 Water Pumping	YOSEMITE NP	Crane Flat Developed Area	See Remote Facility Pwr
637 Water Pumping	YOSEMITE NP	Lake Eleanor Ranger Station	\$18,000
638 Water Pumping	YOSEMITE NP	Ostrander Ski Hunt	\$18,000
639 Water Pumping	YOSEMITE NP	Tenaya East Water System	\$41,000

640 Water Pumping	YOSEMITE NP	White Wolf Developed Area	See Remote Facility Pwr
641 Water Pumping	YUKON CHARLEY RIVERS N	Coal Creek Camp	\$18,000
642 Weather Station	FOSSIL BUTTE NM	Remote Ridge	\$3,000
643 Weather Station	INDIANA DUNES NL	Parkwide	\$3,000
			\$28,612,000

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