Reference Manual – 35B
Reference Manual for the Cost Recovery for National Park Service Provided Utilities

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Executive Summary

Director's Order 35B: Cost Recovery for National Park Service Provided Utilities (DO 35B), approved December 31, 2011, superseded and replaced Special Directive 83-2, "Rates for NPS Produced Utilities" (SD 83-2). This reference manual (RM- 35B), Version 2, February 2021 details the business practices and procedures to be used when implementing DO 35B within a park unit.

While the NPS has a policy preference to utilize commercially available utilities when feasible, there are numerous situations in which it is necessary for the parks to supplement, in part or produce in total, the utilities necessary for operations and public access. The need is typically due to remoteness and lack of commercially available infrastructure. The most typical utility services provided by the NPS are water, wastewater, and solid waste. Less commonly provided are power, fuel, and communications systems. When power (electrical) is provided, the most common scenario is providing in-park transmission services for commercially available power. Providing utility services incurs operations and maintenance costs, as well as recapitalization and capital improvement costs. When the services are provided to non-NPS consumers, reimbursement for a proportional share of the expenses is appropriate and mandated in Director's Order 35B, "Cost Recovery for National Park Service Provided Utilities".

This reference manual provides guidance on how to determine and then apply a utility rate based on (1) a formal rate, based on the physical infrastructure of each utility system; (2) the measurements of usage associated with each utility; and (3) consistently applied costs. Costs for operations, maintenance, recapitalization, and modification of each utility should be distributed to all users of the utility, including concessioners, permittees, partners, and other users of the utility.

The total cost is recovered from all users, by charging for the amount of actual consumption/utilization at the actual calculated rate. To determine a reasonable rate structure and then to manage the base rate and the costs associated with the utilities, parks must draw on data recorded in the Facility Management Software System (FMSS), the Financial Business Management System (FBMS), and the Project Management Information System (PMIS).

Summary of changes in RM-35B, Version 2, March 2021:

1. Added references to FBMS which was deployed after DO 35B was signed and put into effect. These references typically address sources of data used to develop rates.
2. Added Authorities section to cite applicable authorities.
3. Distinguished the RMs for 35B from 35A by adding text "within the park unit" to the RM 35B.
4. Changed references to Regional Director for approval of rate base and changes to rate base to National Program Manager.
5. Removed explanation of how to use FMSS and FBMS as that is not the charge of this RM.
6. Made general clarifications to the reimbursement categories and the work that falls within them.
7. Added section (Section 7.3) about non-NPS federal entities utilizing NPS utilities.
8. Made general corrections or clarifications per the NPS business practices that are the result of lessons learned since DO 35B was signed.
9. Moved metering discussion to appendix; it was peripherally informational.

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INTRODUCTION

Director's Order 35B, "Cost Recovery for National Park Service Provided Utilities" (DO 35B) articulates National Park Service (NPS) policy and procedures for recovering utility costs. It brings NPS into alignment with Office of Management and Budget (OMB) guidance and better balances the NPS's need for more complete cost recovery when providing utilities to non-NPS users. Costs for utilities include annual operating, recurring and preventative maintenance, recapitalization (which includes component renewal), and capital improvement costs. This reference manual describes the procedures associated with implementing DO 35B in parks. It is intended for park units that provide utilities to non-NPS users located within the boundaries of the national park system unit[1]. The manual contains implementation guidance in the form of instructions, procedures, and operational standards, as well as business practices related to various utility services.

The information in this manual is organized into the following sections:

- **Section 1 – Background** sets the context for and policies that have led up to the development and release of DO 35B.
- **Section 2 – Authorities**
- **Section 3 – Utilities Included in Director's Order 35B** lists those utilities subject to DO 35B.
- **Section 4 – Determination of Costs and Rate Structures** defines the major types of rate structures and what parks units must consider when determining the most appropriate structure.
- **Section 5 – Rate Base Considerations** discusses those considerations that may factor into the recovery rate for a given year.
- **Section 6 – Cost Recovery** contains guidance on how park units must recover costs for the utilities the NPS produces for and conveys to users.
- **Section 7 – Utility Accounting** describes how to account for NPS-produced utility services in NPS information systems.
- **Section 8 – Phased Implementation** presents the utility rate implementation cycle for DO 35B within a park unit and across the Service.
- **Section 9 – Updating Rates** addresses the schedules associated with rate deployment.
- **Section 10 – Exceptions** defines those legitimate exceptions to complying with DO 35B.
- **Appendixes**

1. Background

While the NPS has a policy preference to utilize commercially available utilities when feasible, there are numerous situations in which it is necessary for the parks to supplement, in part or produce in total, the utilities necessary for operations and public access. The need is typically due to remoteness and lack of commercially available infrastructure. The most typical utility services provided by the NPS are water,

[1] For non-NPS consumers outside the park boundaries, please reference DO 35A. Inholdings are considered within the park unit boundary.

wastewater, and solid waste. Less commonly provided are power, fuel, and communications systems. When power (electrical) is provided, the most common scenario is providing in-park transmission services for commercially available power. Providing utility services incurs operations and maintenance costs, as well as recapitalization and capital improvement costs. When the services are provided to non-NPS consumers, reimbursement for a proportional share of the costs are appropriate and mandated in Director's Order 35B, "Cost Recovery for National Park Service Provided Utilities".

In 1983, Special Directive 83-2, "Rates for NPS-Produced Utilities" (SD 83-2) required parks to recover the O&M costs of NPS-provided utilities from non-NPS entities within national park areas. In 1985, SD 83-2 was revised to also require parks to recover indirect costs such as overhead and costs associated with certain resource concerns. This revision also dictated that inflationary factors, such as yearly inflation rates or known federal pay increases, be applied to historical costs and comparable data. In general, SD 83-2 required parks to establish utility rates based on actual operating costs, or comparable utility costs, whichever was greater. DO 35B, approved in December of 2011, replaced SD 83-2 and set policy for parks to recover capital costs in addition to O&M costs for the provision of utilities to non-NPS users.

The Financial Business Management System (FBMS) deployment in FY 2013 changed the way costs are captured and tracked. Business practices and tools were modified to integrate these changes and to reduce the need for duplicate data entry by the affected parks.

2. Authorities

Parks must comply with all applicable Federal laws and regulations that pertain to cost recovery for utilities. The following is a synopsis of the most commonly applied regulations.

The National Park Service Organic Act of August 25, 1916. (16 USC sec. 1) established the National Park Service.

54 U.S.C. Section 101901 allows the Secretary to furnish, on a reimbursement of appropriation basis, all types of utility services to concessioners, contractors, permittees, or other users of the services, within the System.

31 U.S.C. 9701(a-c) states that Congressional intent for any services provided by an agency to a person are to be self-sustaining to the extent possible. As such, the head of each agency may prescribe regulations that establish a charge for a service or thing of value provided by the agency.

Part 245 of the Department of the Interior Manual, in which the Secretary of the Interior delegates to the NPS Director the authority to supervise, manage, and operate the national park system.

36 CFR Part 18.12 requires a lessee from the NPS to pay for use of all utilities used by the lessee.

36 CFR Part 51 requires that a prospectus for concession contracts include what utilities will be provided to the concessioner.

48 CFR Part 41 (Acquisition of Utility Services), which gives the General Services Administration (GSA) the authority to manage utilities for the federal government. It also gives GSA the authority to allow the NPS

to manage its own utilities if it benefits the NPS.

OMB Circular A-25 is the policy guidance for federal agencies in setting fees.

OMB Circular A-45 is the policy governing charges for rental quarters and related facilities.

Director's Order 80 is the guiding document for all Real Property Asset Management in the NPS.

Director's Order 32 provides guidance to deliver Cooperating Associations with utilities in accordance with Director's Order 35B.

Reference Manual 36 provides data collection requirements and exceptions to utility cost collections for NPS Housing Management.

NPS Management Policies 10.2.6.4 states the Service may provide utilities to a concessioner for use in connection with the operations required or authorized under the contract at rates to be determined in accordance with applicable laws.

3. Utilities Included in Director's Order 35B

The guidelines contained in DO 35B apply to all utilities produced and conveyed by the NPS and utilized by other users. These utilities generally include, but are not limited to, the following:

- Power (generally electricity)
- Fuel (includes diesel, gas, natural gas, propane and similar)
- Water
- Wastewater
- Solid waste and recyclables
- Communications systems

These services may be produced in total by the NPS, may be commercially provided to the NPS on the NPS infrastructure, or be contracted by the NPS. In all cases, the NPS shall calculate the rate (or an add-on to commercially provided services) based on the NPS costs and invoice the non-NPS consumer based on the quantity of the service provided.

For partners, cooperating associations, and other non-profit organizations, DO 35B applies to stand alone facilities, where the organization is the only occupant, where the organization occupies a dedicated portion of the facility (e.g. for office, storage space, or other uses), or facilities where there are separate meters for individual spaces. It does not apply to the facilities where those organizations are in a co-located office (i.e. in the same room) or run a small portion of the visitor center.

Agreements for cost reimbursement for services, such as plowing snow, and for other non-utility activities or services immediately reimbursable, are not covered under this DO. Additionally, any services contracted directly by the non-NPS user are not covered under this DO.

NPS employees residing in NPS housing are charged for NPS-produced utilities in accordance with current

law and implementing guidance, including OMB Circular A-45 (policy governing charges for rental quarters and related facilities), the Departmental Quarters Handbook, and NPS-36 (Government Furnished Quarters Guideline). This guidance does not apply to NPS-owned housing.

4. Determination of Costs and Rate Structures

Rate structure: is the method outlining how a rate is determined. Parks may select from three types of rates structures when determining the most appropriate rate structure for recovering their utilities' costs.

Single Unit Rate

The simplest form of rate structure is the single unit rate structure. It is calculated by dividing the total costs by the total number of units of utility service produced (e.g., 1,000 gallons of water, cubic yards of waste disposed, etc.). This calculation results in a uniform rate equal to the cost per unit of utility service provided. This rate structure is the easiest to determine, is likely to be more accurate in recovering project costs and is the simplest to manage administratively.

Variable Rate

A variable or differential rate structure, while more complex, can be used to serve specific goals. For example, where it is possible and desirable to encourage conservation and reduce energy usage during peak periods, it may be useful to charge higher rates during what would normally be periods of heavy (peak) usage or to have higher rates (an inclining block structure) for certain thresholds of usage. This practice would result in a rate structure that varies by time of use, time of day, or time of year (season) and usually requires extensive and advanced metering to accomplish.

A differential rate structure may be particularly valuable in reducing consumption during high rate periods as well as encouraging resource conservation. It serves to balance usage between peak and off-peak periods, as users are financially motivated to reduce utility usage or shift such usage away from peak periods. The rates for this structure should be set under the assumption that there will be reduced consumption as the customer responds to the price change. In addition to the general benefits of energy and utility conservation, reduced or redistributed usage may eliminate or at least postpone the need to expand the capacity of the physical utility plant providing the utility service.

Similar to the differential rate structure is a usage rate structure used for fuel systems, water consumption, and energy charges. Under such structures, a flat rate per unit measure is set to a maximum usage level. Usage above that level triggers another rate fee. For example, electric power usage up to 1,000 kWh is one fixed rate per kWh, but usage over 1,000 kWh is at a different rate.

Fixed Fee Plus Variable Rate

A third-rate structure is a fixed fee plus variable rate. The fixed fee is assessed for a period of time (monthly, semiannually, or annually) and addresses fixed items in the rate structure that would occur regardless of usage volume; an additional charge is assessed for actual units used. This rate structure is useful in situations where the system has a high percentage of fixed costs that would

remain even if usage were reduced. With reduced usage, revenues decrease and would not cover the fixed costs that remain. In those cases, a high unit rate may tend to discourage usage, but costs would not be commensurately reduced, and the park unit might find that the charges do not cover the full costs of operations.

Ultimately, the rate structure that is adopted must be as equitable as possible to all users and must be justified as being the appropriate recovery rate when seeking the National Program Manager's approval. This structure should be determined under the anticipation that the same structure (not the same rates) will be continued into the foreseeable future. If, for some reason, it becomes apparent that a change should be made to the rate structure, that change must be proposed and justified to the National Program Manager.

Capturing costs: Identifying and capturing the structure and the costs is heavily dependent on the Facility Software Management System (FMSS), the FBMS, and the Project Management Information System (PMIS). The FMSS is a Maximo® application the NPS uses to manage facilities. FBMS is a Department of the Interior financial application used to capture expenditures as well as other financial information. The PMIS is a custom application used to manage projects that supports many different funding sources and project types. The primary funding sources involved in utility projects are Recreation Fee, Repair/Rehab, Cyclic Maintenance, and Line Item Construction. This document is not intended to provide instructions on using the FMSS, FBMS or PMIS, but rather to introduce readers who may be unfamiliar with the applications.

The FMSS includes work orders to which work is assigned and tracked. For purposes of utility rate development, it is imperative that all NPS labor be reported to a work order at the utility location records level. Other costs associated with work that was performed will be retrieved from FBMS based on the location level for a system or manually entered by the park.

FBMS records should contain all the other expenditures. These include materials, supplies, tools, and contracted costs. Parks are responsible for assuring this or for tracking expenditures separately. All documented expenditures are subject to audit.

Project development reflects work needing to be performed that is beyond typical annual operations and maintenance work. The frequency period of this work is typically greater than one year and often significantly longer. Completed project development results in work orders that are grouped into logical project efforts and submitted as part of a package to PMIS to facilitate prioritization and funding of the project work. These formulated projects are used to predict rate fluctuation based on formulated year and estimated cost. The costs from a project will not be incorporated into the rate until the PMIS project component is completed as per FBMS records, and only documented actual costs will be used (not estimates).

5. Rate Base Considerations

After determining the most appropriate rate structure (Section 4), parks must take into consideration other factors in formulating the costs that go into the final utility rate, how that information is captured, and how it is accurately measured.

5.1 Utility Systems

A utility system consists of the components required to produce, collect, or transmit services to or for the consumers of the service. Utility systems encompass all components and dedicated supporting structures required to provide the utility or service. Defining what is included in a utility system is an important part of establishing the components of the infrastructure associated with the total cost of providing utility services.

To define the utility system within a park unit, a park must identify the included FMSS location records. These location records - *the rate base* - must be strictly adhered to in capturing costs.

Using the municipal model for rate base**:** The NPS has adapted many industry standards in its asset management program, which includes recommending use of a municipal model for utilities to determine the boundaries of each utility system and therefore the records that should be included.

The municipal model is one that assigns ownership of service connections to the facility being served and not to the utility system. Following this model, water and wastewater service connections are not considered part of the utility system and work done on these should not be included in utility system costs. Costs attributed to service connections should be tracked against the structure that is served by it and only billed to the occupant as appropriate.

Service connections: In the municipal model, service connections are the responsibility of the "owner" of the facility being served. To illustrate this case, homeowners must pay for the cost of connecting their utility services in new homes, and they are responsible for all maintenance and repair done on that service connection.

Partial occupancy of a building by utility system components or personnel should be carefully evaluated when considering the building's contribution to utility expenditures. When only part of a structure or facility contributes to the utility service, it is often not appropriate to capture all of the costs. For example, a small laboratory associated with the utility operation that is part of a multi-purpose building might not be included as a part of the utility system, but the labor of the laboratory technician or operator and all equipment purchased for that laboratory would be fully attributable to the utility system. In such an example, the cost for the laboratory technology and the equipment should be captured against a utility system record in the FMSS and not the multipurpose building in which it is located.

For more examples when only part of a structure or facility contributes to a utility service, see Table 1.

Table 1. Examples of Utility Systems Where Only Part of a Structure or Facility Contributes to the Utility System

Utility System	May Include (But Not Limited To)	Excludes
Water Treatment System	Treatment building and all equipment to include pumping stations and supporting structures (vaults, collection and transmission piping, valves, fire hydrants, storage tanks, intake systems, laboratories, meters, fencing, and standby generators)	Service connection laterals from corporation tap to facility served

Utility System	May Include (But Not Limited To)	Excludes
Wastewater Treatment System	Treatment building and all treatment equipment to include lift stations and supporting structures (vaults, collection and disposal piping, manholes, fencing, standby generators, valves, treatment tanks, solids treatment systems, pump trucks)	Service connections from facility serviced to main collection line, small septic tank and drain fields such as those serving one residence, vault toilets, comfort stations
Electrical Systems	Power-generating equipment, transmission lines, dedicated fuel tanks, transmission poles, substations, service connections to and including electrical service meters, fencing, bucket trucks	Service connections from the meter to the facility or building entrance appurtenance
Fuel Systems	Fuel tanks, fueling stations, dispensing systems, fuel system piping, containment, protection, security, monitoring, vehicles as tools, fencing, meters, associated pavement	Service connections from fuel meter to the facility served
Solid Waste Systems	Packer truck, containers, container pads, incinerators, cleaning stations, recycling facilities, storage facilities, transfer stations, fencing	Custodial services inside a building

5.2 Utility-related Fleet Assets

Some fleet assets are associated with the provision of utilities and the costs of such assets should be considered for recovery. Specialized fleet assets, such as pumper trucks, light or medium-duty trucks, etc. should be included as costs at a standard rate and may be a manual entry in the rate calculator[2]. The FBMS fleet module will be used to track fleet 100% dedicated to the utility system. The cost data should include use (fuel), repairs/maintenance, and amortized replacement costs. The FBMS will provide a depreciation of such records and will be utilized as the source for this cost data for inclusion in the recovery rate. Examples of specialized fleet equipment include, but are not limited to, garbage packer trucks, wastewater pumper trucks, and bucket trucks.

5.3 Retrieval of Cost Data

Each park must provide a list of all location records and fleet and other asset records to be included for rate recovery. This list may not be changed randomly; oversight is the responsibility of the National Program Manager. Additions to the list would normally only occur with the addition of a new utility-related location record, such as a new wastewater treatment plant.

[2] Fleet and equipment rates are RS Means based, annually updated, and meant for relatively short-term rentals.

Cost data will be organized into operations and maintenance costs and recapitalization and capital improvement (CI) costs. The cost bucket criterion is listed as follows:

- Operations and Maintenance costs
  - Will only consider costs/expenditures that were incurred in the cost data year (the fiscal year previous to the rate year -- see glossary for distinction between data year and rate year).
  - All NPS labor from FMSS as captured by FO workorders.
  - All NPS labor from FMSS as captured in FM work orders that are NOT a part of a PMIS project.
  - All expenditures for fuel, supplies, materials, tools, etc. as either available in FBMS, accurately settled to the correct location or as tracked by the Park unit.
  - All contracted work that is operational in nature (occurs on an annual basis).
- Recapitalization and Capital Improvement costs
  - Will only include documented costs for completed projects (source=FBMS).
  - Will always be amortized based on the estimated design life (EDL) for the total project component.
  - Will include NPS labor (source=FMSS) for adhoc work orders to also be amortized (if appropriate, the user may select "one" year for the amortization period).

The costs as described above, along with other documented data not captured in FMSS or FBMS will be used to develop utility rates. Production data (metered amounts or quantities of **total** production amount of a utility) is entered into rate tool to determine the cost per unit of utility service (e.g. cost per 1,000 gallons of water produced).

5.4 Consumption/Usage Data

As part of any rate structure determination, it is important to consider the metering which measures both production and consumption of the utility. Ideally the NPS would meter all consumers, including themselves. By summing the consumption by all, line losses would be equitably distributed between all consumers. Most parks only fully meter non-NPS consumers of the utility. In order to calculate rates, these parks must use the production meter at the source to determine the total production amount. A rate is then calculated based on the total cost/total production for the year. Invoicing would be based upon consumption metering. Until full metering of all consumers is accomplished, production meter values minus consumption meter values places the cost burden of line losses, hydrant flushing, etc. upon the NPS.

The minimum standard is that the park production of a utility will be based on master meter at production origin (e.g. water treatment plant) and that all non-NPS consumers will be invoiced based on metered consumption. The ideal standard would be that all consumers are metered and that the sum of the meters would be utilized as the production amount for the rate calculation. See Appendix K for additional information on meters.

6. Cost Recovery Requirements

The provision of utility services has considerable cost implications for all users. This section discusses

how a park unit can recover costs for NPS-provided utilities.

6.1 Cost Recovery Cost Categories

To recover utility costs, parks must document the total cost to operate and maintain utility systems and use these costs, along with consumption data, to develop a transparent and uniformly applied rate. These rates are set specifically for each type of utility system, e.g., a rate for water, another for wastewater. The single parkwide rate approach for each utility type (e.g. one water rate per park versus multiple water rates within a park) is usually the simplest rate type to recover costs and is preferable for reasons of consistency, transparency, repeatability, and ease of incorporation, but is not mandated.

The costs required to provide a utility service are divided into two broad categories:
1) Operations and Maintenance and 2) Recapitalization and Capital Improvement.

Operations and Maintenance

- Incorporates all NPS labor tracked in FO work orders and all non-project FM work orders and non-project CI work orders
- Includes all fleet records noted as 100% dedicated to a utility system and tracked in FBMS; FBMS can supply amortization (depreciation) and maintenance costs if tracked and reported by park unit
- Includes all actual costs accrued during the data year
- Operations and Maintenance costs are not amortized; they are considered in full for the rate calculation
- Cost source: NPS labor as tracked in FMSS, all other costs tracked in FBMS or park documentation

Recapitalization and Capital Improvement

- Includes the cost of all work associated with PMIS projects. Project status must be completed during the ***data*** fiscal year[3]
- Includes NPS labor from all/any adhoc work orders whether or not associated with a project.
- Includes all actual costs for the project (not fiscal year restricted); a multi-year project would have the total costs from the multiple years recorded upon completion of a component
- Is amortized based on the estimated design life (EDL) of the project
- Cost source: NPS labor as tracked in FMSS, all other costs tracked in FBMS or park documentation

The main differences in these categories are the cost, complexity, and frequency of the tasks. O&M work tends to consist of tasks performed annually or more frequently and is typically accomplished using park operations or utility reimbursable accounts. PMIS project work tends to include cyclic maintenance, recapitalization, and new capital construction. It generally recurs on a less frequent cycle. Project work can be both project funded or funded from park operations accounts. Project work

[3] The data year is the FY prior to the rate year. Setting a rate for FY19 would require the data from FY18. Hence the rates are always 'one year behind'.

that is determined to belong in the O&M category can have the EDL adjusted to one (1) year and the costs for that project will be fully included in a single rate year.

The Utility Rate Computation Summary is shown in Appendix H.

More detailed cost recovery guidance for each of these three categories is contained in the following sections.

6.1.1 Recovery of O&M Costs

The following cost activities fall within the O&M cost activity category:

- Operations and Maintenance – O&M rates are calculated on a per unit cost based on the previous year's usage and O&M costs. The NPS consults standards, such as the American Water Works Association Principles of Water Rates, Fees, and Charges and the Water Environment Federation's Financing and Charges for Wastewater Systems, for determining rate computations.
- Administrative Overhead – Administrative overhead costs of 15 percent are assessed on the O&M portion of the rate base. They should be included already in the project totals. See the Utility Rate Computation Summary in Appendix H.
- Indirect labor costs, such as annual and sick leave, federal holidays, and time spent in training are determined by adding a leave surcharge to the total accrued labor expenditures in the location. The leave surcharge is calculated by multiplying personal service charges (including accrued payrolls) by a percentage factor of 16 percent, which is based on an overall average of indirect costs for leave across the NPS. This amount is subject to adjustment pending periodic evaluation.

All expenditures for personal services (e.g., salaries and benefits), travel, supplies and materials, training fees, utility fees, vehicle costs, energy usage, and consumables directly associated with the utility are included in the utility O&M rate base.

Unanticipated expenses incurred or savings realized are factored into the following year's rates. End-of-the-year payments by users or rebates by the NPS to equalize actual costs and payments are not made.

Unscheduled work for emergency repairs is included in this cost category initially. If a park determines that this work would more appropriately fit into Recapitalization and Capital Improvement, the park can choose to amortize the cost of this work. Allowing amortization minimizes the impact of high emergency repair costs to the rate and still allows for cost recovery. Unscheduled/emergency work will be incorporated into the following year's rate at the annual amortization amount.

6.1.2 Recovery of Costs associated with completed Recapitalization and Capital Improvement Projects

Recapitalization and Capital Improvement project work contains three cost categories described as follows:

- PMIS Project Work Orders- This type of work is captured in FMSS work orders that are associated with PMIS projects. The sub-work types are not critical but can be noted in the

rate tool. PMIS project work includes all (and only) work orders associated with PMIS projects.

    - The actual costs for PMIS projects are captured in FBMS at the location record level. The costs will contribute to the rate as an amortized amount based on the design life of the project component. This work does not contribute to the rate until the work is completed.
        - If the costs of project work are not distributed at the location record level in FBMS, then the park is responsible for ensuring the appropriate distribution of costs in the rate tool. This is especially important if the project work includes locations that are not a part of the utility rate basis. (e.g. multiple roof project that includes non-utility buildings).

- Labor not accounted for in PMIS Project- Adhoc subtype work order is used to add NPS labor to project costs as appropriate. The rate tool adds all NPS labor costs from adhoc work orders to completed project costs. These costs should be amortized on the same schedule as the project with which the work is associated. Ideally the associated project can be identified in FMSS and carried forward to the rate tool, but this is not required.
- Equipment Replacement- Equipment replacement for fleet assets identified in the rate base is captured in FBMS; it contributes to the rate as an amortized amount based on the design life of the asset. For example, a garbage packer truck should be replaced on an interval, and the cost for replacement is to be captured and amortized over the estimated life of the vehicle. If this is not captured in data from FBMS it should be entered separately in the rate tool and amortized appropriately.

Project-funded work is straight-line amortized over the estimated design life of the project. This amount is included as an annual contribution to the rate until it is fully amortized. For example, a $100,000 piping replacement project amortized over 40 years will contribute $2,500 a year to the rate base for each of the 40 years. If the annual water production is 10 million gallons, the rate would be increased by $0.250 per 1,000 gallons.

Any recapitalization or capital improvement completed is eligible to be included and should be recovered as described in section 5.3. The EDL for utility systems is based on industry standards, with EDLs ranging from 10 to 50 years depending on the scale and type of the project. Evaluation of completed projects must include a determination of the correct EDL to apply to the entire project.

- A project should be considered in its entirety, for purposes of determining estimated design life (which determines the amortization period). For example, a wastewater treatment plant should not be broken down into components such as pumps, lagoons, or tanks. It should be considered as a single project.
- A project may be broken apart if there is a clear separation between function and design life and a clear separation of costs in the final completed project documentation. For example, a new wastewater treatment facility may have additional sewage collection lines in the same project. If broken out, the treatment facility would have an EDL of 30 years, whereas the pipeline will have an EDL of 50 years. The EDL tables (Appendix I) do account for combined system projects.

6.2 Predicting Rates Beyond the Current Year

For the purpose of concession contract prospectus development and financial analysis (or similar analyses), PMIS formulated projects will be utilized to predict rate changes. The prediction of rates assists both NPS and non NPS users in planning and in determining feasibility in the case of multi-year contracts, leases, permits, and agreements. The value of this is for planning purposes only and will not be part of any rate base, nor will the predicted rates take precedence over the actual determined rate. Projects in PMIS will be surveyed and included in a rate prediction application to reasonably estimate future rates. While all utility projects five years out from the current year will be considered, it should be recognized that the data beyond two to three years is subject to change; the accuracy of the prediction decreases the further out the project is to start.

7. Utility Accounting

Funds received from non-NPS users from reimbursable utilities are deposited into the Treasury and available to NPS for specific purposes. Revenues and expenditures are tracked in two separate accounts. One account tracks O&M receipts and expenditures, and the other tracks all Recapitalization and Capital Improvement receipts and expenditures. These two separate reimbursable accounts, managed at the park level, with national and regional oversight, are set up as no-year funds used only for utility system work in the park from which the revenue was accumulated.

The Reimbursable Utilities accounts are PRCRUCIC6 (Recap/CI) and PRCRURUC6 (O&M).

7.1 O&M Account (PRCRURUC6)

The O&M account covers work performed regularly (typically annually) and includes daily operations and preventative and recurring maintenance tasks. There is no intent for this reimbursable fund to fully fund the utility operation. The Reimbursable O&M account is for the specific utility and must be combined with the NPS's share of O&M. There should be little or no carryover in this reimbursable account from year to year as it is used to fund part of the annual operational costs.

7.2 Recapitalization and Capital Improvement Account (PRCRUCIC6)

This account consists of the reimbursements apportioned to the amortized project expenditures as determined by completed recapitalization and capital improvement work. Funds received from this portion of the utility rate must be used to offset future recapitalization and capital improvement work and/or to pay for unscheduled or emergency repairs not accounted for in the utility operations accounts. The funds in this account must be used for future recapitalization and capital improvement projects on utilities in the park from which they were collected, although they do not have to be used for the specific utility or location from which they were derived. The funds should be used as soon as practical; large year-end carryovers should be tied to saving for future projects and must be included in the Park strategic five-year plan for the expenditures of these funds so that funds are used and managed appropriately. National and regional oversight may monitor this account for appropriate and timely expenditures.

This account is available for replacement of utility system items acceptable for replacement, recapitalization, or repair and rehabilitation and other non-operational tasks. The tasks/items funded

by this account must be tracked back to the project rate calculation and amortized. This is not a double accounting of costs because the funds used to pay for the new work were obtained from previously accomplished work.

7.3 Non-NPS Federal Consumers

Non-NPS Federal entities which consume the utilities provided by the NPS are subject to reimbursing the NPS. Appropriated funds from other Federal entities have same-year restrictions imposed on them once they come to NPS.

The Park/Program Office must establish an inter-agency agreement (IAA and/or Treasury Form 7600A & 7600B Form) with the Federal partner and submit the executed agreement (signed by both parties) along with the Reimbursable (RA) Coversheet to NPS Accounting Operations Center (AOC) via email to AOC_RDMT_Reimbursable@nps.gov. Once all documentation is received, AOC Financial Operations Receipts and Debt Management (RDMT) Reimbursables Team will establish/process the reimbursable agreement/Sales Order in FBMS which will begin the billing process for accrued/earned revenue. The authority to enter into these agreements should be listed as the Economy Act, 31 U.S.C. 1535.

Additional reference information regarding reimbursable agreement process can be found on AOC's website https://comp.sharepoint.nps.gov/AOC/SitePages/_RDMT_DOC.aspx.

8. Phased Implementation

This section is only applicable in cases where the concession contract prospectus did not identify anticipated rate increases caused by completed recapitalization and capital improvement work. As new contracts are issued and anticipated rates are identified, this section will no longer be applicable except in cases where the actual charge exceeds the rate predictions by more than ten percent.

DO 35B may result in rate increases for non-NPS users because it calls for the cost recovery of all capital infrastructure.

There are many non-NPS users under a multi-year contract with the NPS that included an assumption of utility rates prior to the implementation of DO 35B. In those instances, the park should phase in the increase in rates so that the non-NPS user sees no more than a ten percent rate increase per year. This practice ensures that non-NPS users pay no more than ten percent more (assuming that their rate of consumption does not change) for each succeeding year, until such time as (1) DO 35B is fully implemented or (2) a new contract is awarded that includes full implementation of DO 35B.

Parks must consider the maximum rate increase separately for each utility type/system. This phased-in approach may also mean that full implementation of DO 35B may occur on different time schedules for different users or different utility types.

After full implementation of DO 35B, parks should phase in any unanticipated (i.e., not forecast or anticipated in the contract) increases that cause a ten percent or higher increase in rates in one year as previously described.

When the ten percent per year implementation cap is applicable, the ten percent increase should include all cost increases for the utility, not just those attributable to inclusion of cost recovery (amortized) for recapitalization and capital improvement projects.

9. Updating Rates

Utility rates for non-NPS users must be reviewed and updated yearly. All non-NPS utility users will be notified of increased utility charges at least 90 days before the changes become effective. To account for such rate increases in its operations, NPS concessioners, who are typically the largest non-park user of utilities, have 30 days to request an exception, and the new rate becomes effective at day 90 unless disputed. Figure 1 outlines the timeline for implementation of a rate.

Figure 1: Utility Rate Timeline for Non-NPS Users

Day	Action
Day 1	Non-NPS user notified of new rates
Day 30	Non-NPS user submits for a waiver and/or approval of pricing structure for pass-through
Day 60	NPS decision on waiver and/or pass-through
Day 90	New rate effective

For exceptions or waivers of the full calculated rate, refer to Section 10, Exceptions. For information about concession contract utility add-ons, refer to section 4 of the Concessions Management Rate Administration Guide.

10. Exceptions

Utility rates are to be adjusted only when costs attributable to non-NPS users' are extraordinarily high and cannot practically be absorbed while retaining the feasibility of operation. When full cost recovery would jeopardize the economic viability of a non-NPS user, the user or the park may supply a financial analysis for consideration for a waiver. When a waiver is proposed, the park Superintendent must submit the waiver request through the Regional Director before being submitted to the National Program Manager; the National Program Manager will submit for review and determination to the Associate Director (AD), Park Planning, Facilities, and Lands (PPFL) and NPS Comptroller in consultation with the AD, Business Services, and the AD, Partnerships and Civic Engagement, as appropriate. Appendix J of this RM includes a checklist of items users must submit with their request. This RM outlines the timeline for the implementation of the new rate, accounting for the potential submission of a waiver, in Figure 1 in section 9.

For existing concession contracts, the exception request must include an analysis of the rates assumed at the time of the contract and the increase due to the new rates. Any proposed rate reduction must be justified using a full financial analysis by the affected party, including documentation as to why the reduction is necessary and how much of a rate reduction they are requesting.

It may be apparent during prospectus development or agreement development that the park should consider an exception for a non-NPS user. A request for a waiver of full or partial costs can be initiated during prospectus development or agreement development and considered for approval by the AD, PPFL and NPS Comptroller, with concurrence by the respective Associate Director, AD, Business Services or AD, Partnerships and Civic Engagement as appropriate.

Exceptions to the full utility rate may be allowed for cooperating associations as authorized under DO 32, but, outside of this authority, cooperating associations are required to follow the same process as other non-NPS users.

Appendix A: Acronym List and Terminology

A.1 Acronyms List

Acronym	Definition
AD	Associate Director
CI	Capital Improvement
CR	Component Renewal (included in Recapitalization, typical throughout)
DO	Director's Order
DO 35B	Director’s Order 35B
EDL	Estimated Design Life
FCE	Fixed Capital Equipment
FBMS	Financial Business Management System
FM	Facility Maintenance
FMSS	Facility Maintenance Management Software System
FO	Facility Operations
FY	Fiscal Year
IE	Interpretation and Education
IG	Inspector General
NPS	National Park Service
OMB	Office of Management and Budget
ONPS	Operations of the National Park System
PMIS	Project Management Information System
PPFL	Park Planning, Facilities, and Lands
PCE	Partnerships and Civic Engagement
R/R	Repair and Rehabilitation
SD	Special Directive
SD 83-2	Special Directive 83-2

A.2 Terminology List

Term	Definition
Rate Structure	The method determining how a rate is calculated.
Rate Base	The components (location records, assets, work) that are incorporated into a rate.
Rate	The fee per unit of measure (e.g., dollars per 1,000 gallons) based on all costs and amount of utility produced. Each user is billed based on a prorated amount calculated from the consumption.
Location Record	A record in the FMSS that encompasses a facility such as a building or a utility. It consists of many components.
Asset Record	A record in the FMSS that is a component of a location. Manholes are assets of a wastewater utility location record.
Data Year	The data year is the year prior to the current rate year. The data year cost and production data are used to set a rate in the Rate Year which is typically the current fiscal year.
Work Orders	Method used in the FMSS to describe work, purchases, and activities. Work orders are associated with a location record and often an asset record. They can be used to determine the total cost to provide the utility.
Rate Year	The year in which a rate is applied. It is typically based on the costs and production in the previous year (the data year). The rate calculated should stay in effect for a period of one year and be recalculated annually.

Appendix B: Water Utility Business Practice

The rate base for a water utility should include all the physical attributes that are directly related to the production, treatment, transmission, and distribution of potable water to all users. The raw water acquisition through the treatment process and the main line transmission all involve physical attributes that serve all users. Distribution and small lateral lines that serve individual facilities are *not* part of the rate base, and any work, repairs, or other costs should not be charged as part of the general water utility. Large systems that serve the general public, however, may be appropriate to include in the rate base. For most purposes, that dividing line will be the connection (often a corporation cock) between the main line and the service or small lateral line.

A park must positively identify the physical attributes of the water utility so that there will be no question about what is included and excluded from the rate base. This list, once approved, may not be modified without written justification and approval by the National Program Manager.

The items in the rate base of a water utility should include, but are not limited, to raw intake structures and appurtenance, raw water transmission lines, wells, main distribution lines, fire hydrants, main line valves, water treatment buildings and equipment, lift stations, meters, water vaults, fencing, and standby generators for the water utility that serve more than one user. The lines that are not in the rate base should be well defined, and the users of those lines should be made aware of the different responsibilities. Specialized vehicles, such as garbage packers, sewage pumper trucks, and bucket trucks that are owned and maintained by the park should be considered as items contributing to the rate base. All other vehicles should be considered as tools, and the costs for them should be determined by a tool rate and not be tracked as part of the rate base. All items in the rate base of a water utility should have a specific estimated design life (EDL) assigned to them for the purposes of planning, implementing, and tracking capitalization/recapitalization expenditures.

A rate structure for a water utility should be set using some sort of measuring method. Normally, measurement would be achieved through a full metering of all facilities for both NPS and non-NPS users. A common measurement would be a set charge per 1,000 gallons, although this is not mandated. The rate structure should be set up so that incurred costs can be captured in two ways: operations and maintenance and recapitalization/new capital improvement. Any incurred costs will be captured through a variety of methods, although using Facility Management System Software (FMSS), Financial and Business Management System (FBMS), and Project Management Information System (PMIS) data will be the databases of choice. Operations and maintenance cost recovery is generally funded out of the operations portion of the utility reimbursable account or regular park base. PMIS projects should not be included as operations and maintenance costs. Recapitalization/new capital improvement projects are not normally funded out of base park funds. The work in these two categories should be amortized over the EDL of the systems on which the work is performed.

B.1 Operations and Maintenance – Typical Costs

The direct costs of treatment, storage, and distribution of water will vary depending on the type of treatment required, the amount of energy required for pumping and processing, the storage requirements, and the distribution system layout. In general, calculations of operating costs should include the following:

1. All personal services, supplies, power, and equipment repairs necessary to operate and maintain potable water facilities in accordance with federal and state standards
2. Maintenance work (including replacement of small equipment components of the system) necessary for the operation of the utility.

The kinds of operation and maintenance costs, which should be included, where appropriate, in calculating the operating costs of water systems include, but are not limited to, the following:

- Direct labor for daily operation and monitoring of system
- Direct supervision of employees engaged in operating system (do not include costs for billing or indirect supervision, which are covered in the administrative costs.)
- Energy required for pumping and treating water
- Regular repair and replacement of valves, hydrants, meters, and other appurtenances
- Yearly inspections and testing, including flow tests of hydrants
- Periodic flushing of the system
- Replacement of water lines if less than 50 feet
- Cleaning of water storage reservoirs
- Maintenance on raw water reservoirs, intakes, and transmission lines
- Repair of electrical and mechanical components of the pumping or treatment process
- Chemical costs associated with the treatment process
- Costs of providing and maintaining standby power generation, including the costs and fees associated with the related fuel storage tanks
- Utilities and maintenance costs for any structures, housing treatment, and pumping equipment
- Replacement of cartridge-type filters
- Backwash pond cleaning and maintenance, including sludge removal
- Laboratory equipment and fees necessary to monitor process, control, and obtain reporting data as required by the regulatory agencies
- Cleaning and repairing of the distribution systems
- Winterizing and de-winterizing of the systems, including any plowing necessary to activate the system by keeping it accessible
- Painting and sealing of water storage reservoirs
- Total repainting of buildings included in the rate base

- Related costs of the production of water that does not go into service (e.g., process water, losses from leaks)
- Removal of animals, vegetation, and other obstructions (such as ice) from intakes
- State certification and licensing fees for plants and training costs for operations
- Repair/maintain fences around plants and intakes
- Special maintenance assistance/engineers to monitor and improve performance
- Maintaining, calibrating, and reading water meters
- Related medical surveillance, such as hepatitis shots and the use of personal protection equipment
- Maintaining and repairing specialized fleet equipment.

B.2 Recapitalization / Capital Improvement – Typical Projects

These were previously designated as component renewal projects involving a water utility and include, but are not limited to, the following:

- Replacement of electrical and mechanical components of the pumping or treatment process
- Replacement of filter media
- Replacement of roof of water plants or buildings in the rate base
- Replacement of major pumps
- Replacement of standby generators in the rate base
- Replacement of pipes of more than 50 feet but that represent less than a full-scale replacement
- Major meter acquisition and replacement
- Replacement/major repair of fencing around plants or intakes
- Replacement of well pumps
- Replacement of a water treatment plant
- Replacement of large sections of pipe
- Expansion of a water system due to changed conditions or treatment requirements
- Replacement of large, specialized fleet vehicles.

Appendix C: Wastewater Utility Business Practice

The rate base for a wastewater utility should include all the physical attributes that are directly related to the collection, treatment, and disposal of wastewater from all users. The wastewater collection through the treatment and disposal process, including trunk sewers, involves physical attributes that serve all users. Individual and small collection lines that serve individual facilities are *not* part of the rate base, and any work, repairs, or other costs should not be charged as part of the general wastewater utility. Wastewater systems that serve the general public may be included in the rate base. For most purposes, that dividing line will be the connection between the main line sewer and the service or small lateral line.

A park must positively identify the physical attributes of the wastewater utility so that there will be no question about what is included and excluded from the rate base. This list, once approved, may not be modified without written justification and approval by the National Program Manager.

Items in the rate base of a wastewater utility should include, but are not limited to, collection lines, manholes, main line valves, wastewater treatment buildings and equipment, lift stations, meters, vaults, fencing, and standby generators for the wastewater utility that serve more than one user. The lines that are not in the rate base should be well defined, and the users of those lines should be made aware of the different responsibilities. No charges are to be levied against the wastewater utility for those lines serving one user, such as collection lines to a single facility. Specialized vehicles, such as garbage packers, sewage pumper trucks, and bucket trucks that are owned and maintained by the park should be considered as items contributing to the rate base. All other vehicles should be considered as tools, and the costs for them should be determined by a tool rate and not be tracked as part of the rate base. All items in the rate base of a wastewater utility should have a specific estimated design life (EDL) assigned to them for the purposes of planning, implementing, and tracking component renewal and capitalization/recapitalization expenditures.

A rate structure for a wastewater utility should be set using some sort of measuring device. Normally, measurement would be achieved through a full metering of all facilities for both NPS and non-NPS users. Meters just measuring wastewater are not reliable and tend to become clogged. A common measurement would be a set charge per 1,000 gallons of utilized water, although this is not mandated. The rate structure should be set up so that incurred costs can be captured in two separate ways: operations and maintenance, and as described in section 3.1. Any incurred costs will be captured through a variety of methods, although using Facility Management System Software (FMSS), Financial and Business Management System (FBMS), and Project Management Information System (PMIS) data will be the databases of choice. Operations and maintenance cost recovery is generally funded out of the operations portion of the utility reimbursable account or regular park base. PMIS projects should not be included as operations and maintenance costs. Recapitalization/new capital improvement projects are normally funded out of PMIS projects and not by operations or base park funds. The work in these two categories should be amortized over the EDL of the systems on which the work is performed.

C.1 Operations and Maintenance – Typical Costs

The direct costs of wastewater collection, treatment and disposal will vary depending upon the type of facilities, such as septic tanks, absorption fields, lagoons, and complex mechanical treatment plants. In general, calculations of operating costs should include the following:

1. All personal services, supplies, power, and equipment repairs necessary to operate and maintain wastewater facilities in accordance with accepted standards for resource protection and compliance with federal and state regulations.
2. Maintenance projects (including minor replacement of equipment components of the system) necessary for utility operation, regardless of the funding source.

The kinds of operation, maintenance, and minor repair costs that should be included, where appropriate, in calculating the operating costs of wastewater utility services include, but are not limited to, the following:

- Direct supervision of employees (does not include costs for billing or indirect supervision, which are covered in the administrative costs markup)
- Exercising valves and inspecting for infiltration/exfiltration
- Normal operational and maintenance procedures, in accordance with standard practices, required to comply with federal and state regulations and to provide resource protection
- Energy required for pumping and treating wastewater
- Cleaning and repairing of sewer lines and manholes
- Repair of pumps, motors, and electrical and mechanical equipment in lift stations and treatment plants
- Chemical costs associated with wastewater treatment and disposal
- Video inspection of lines
- Painting of buildings included in the rate base
- Pumping of septic tanks, vault toilets, grease traps, pit toilets, and holding tanks (The cost of cleaning vault and pit toilets is not to be included.)
- Lagoon and percolation pond cleaning
- Maintaining standby power generation, including the costs and fees associated with the related fuel storage tanks
- Laboratory equipment of fees necessary to monitor process, control, and obtain reporting data as required by regulatory agencies
- Repair of flow monitoring equipment
- Winterizing and de-winterizing of the system, including any plowing necessary to access the facilities
- Removal of animals, vegetation, and other obstructions from intakes
- Monitoring of groundwater monitoring wells and analysis of the groundwater

- Maintaining fences around treatment facilities
- State certification and licensing fees for plants and training costs for operators
- Special maintenance assistance/engineers to monitor and improve performance
- Related medical surveillance, such as hepatitis shots and personal protection equipment
- Repairs/replacement of sewer lines of less than 50 feet
- Maintaining and repairing specialized fleet equipment.

C.2 Recapitalization / Capital Improvement– Typical Projects

These were previously designated as component renewal projects involving a water utility and include, but are not limited to, the following:

- Replacement of pumps, motors, and electrical and mechanical equipment in lift stations and treatment plants
- Absorption and leach field replacement
- Replacement of sludge drying bed media
- Replacement of filter media
- Sections of pipe or manholes of more than 50 feet
- Replacement of generators
- Replacement/expansion of sewage treatment plants
- Replacement of large sections of piping and manholes
- Modification of or change to treatment systems due to changing conditions
- Replacement of large, specialized fleet vehicles.

Appendix D: Electrical/Power Utility Business Practice

The rate base for an electric utility should include all of the physical attributes that are directly related to the production, transmission, and distribution of electricity to all users. The power production or acquisition to the individual meter or service entrance involves physical attributes that serve all users. Distribution inside of a building or facility is *not* part of the rate base, and any work, repairs, or other costs should not be charged as part of the general electrical utility. For most purposes, that dividing line will be the meter or, for lack of a meter, the service entrance connection to a facility. Care must be taken in what is included in or excluded from the rate base when the generator facilities are an integral part of a building or facility, especially if no power is exported from that facility to the general park grid.

A park must positively identify the physical attributes of the electrical utility so that there will be no question about what is included and excluded from the rate base. This list, once approved, may not be modified without written justification and approval by the National Program Manager.

Items in the rate base of an electric utility should include, but are not limited, to generators, stand-by generators, fuel storage, and hydro facilities solely for producing power, solar panels, wind turbines, substations, transformers, power lines, power poles, and metering devices. The lines that are not in the rate base should be well defined, and the users of those lines should be made aware of the different responsibilities. Specialized vehicles and equipment that are owned and maintained by the park should be considered as items contributing to the rate base. All other vehicles should be considered as tools, and the costs for them should be determined by a tool rate and not be tracked as part of the rate base. All items in the rate base of an electric utility should have a specific estimated design life (EDL) assigned to them for the purposes of planning, implementing, and tracking component renewal and capitalization/recapitalization expenditures.

A rate structure for an electric utility should be set using some sort of measuring device. Normally, measurement would be achieved through full metering of all facilities for both NPS

and non-NPS users. A common measurement would be a set charge per kilowatt hour, although this is not mandated. The rate structure should be set up so that incurred costs can be captured in two separate ways: operations and maintenance and recapitalization/new capital. Any incurred costs will be captured through a variety of methods, although using Facility Management System Software (FMSS), Financial and Business Management System (FBMS), and Project Management Information System (PMIS) data will be the databases of choice. Operations and maintenance cost recovery is generally funded out of the operations portion of the utility reimbursable account or regular park base. PMIS projects should not be included as operations and maintenance costs. Recapitalization/new capital improvement projects are normally funded out of PMIS projects and not by operations or base park funds. The work in these two categories should be amortized over the EDL of the systems on which the work is performed.

D.1 Operations and Maintenance – Typical Costs

The direct costs of electrical generation and distribution will vary depending on the type of generation (e.g., hydro, diesel, and propane), the length of transmission, and the size of the generator. In general, calculations of operating costs should include the following:

1. All personal services, supplies, power, and equipment repairs necessary to operate and maintain electricity system facilities in accordance with federal and state standards
2. Maintenance projects (including replacement of minor equipment components of the

system) necessary for the operation of the utility, regardless of the funding source.

The kinds of operation, maintenance, and minor repair costs that should be included, where appropriate, in calculating the operating costs of electricity systems include, but are not limited to, the following:

- Direct supervision of employees (does not include costs for billing or indirect supervision, which are covered in the administrative costs markup.)
- Inspections
- Maintenance of turbines, transformers, and switch gear
- Maintenance of distribution lines and meters
- Maintenance of engines and generators
- Fuel and antifreeze
- Winterizing and de-winterizing of the system, including any plowing necessary to access the facilities
- Removal of animals, vegetation, and other obstructions from hydro intakes
- Painting of electrical/power utility components
- Related medical surveillance and personal protection equipment
- Special maintenance assistance/engineers to monitor and improve performance
- Repair of fencing
- Fees associated with underground or aboveground storage tanks for fuel storage
- Permitting
- Losses due to transmission
- Monitoring equipment
- Meters, but not meter bases
- Maintaining and repairing specialized fleet equipment.

D.2 Recapitalization / Capital Improvement – Typical Projects

These were previously designated as component renewal projects involving an electric utility and include, but are not limited to, the following:

- Replacement of transformers
- Replacement of individual power poles
- Component renewal of roofs, etc. of buildings associated with the electric utility
- Replacement of smaller generators
- Replacement of meter-reading devices
- Replacement of meters
- Replacement of power lines
- Mass replacement of power poles
- Replacement of large generators
- Major intake work
- Installation of new or additional generating facilities, including renewable energy
- Replacement of large, specialized fleet vehicles.

Appendix E: Solid Waste Utility Business Practice

The rate base for a solid waste utility should include all of the physical attributes that are directly related to the collection, transfer, and disposal of solid waste, including recyclable solid waste that serves multiple users. Refer to Executive Order 12873 and PL 105-61 SEC608 for additional information on authorizations for the funds acquired by the sale of recycled materials. The Solid Waste Management program requirements govern waste stream reporting requirements. Parks may choose to identify Recycling Programs as a utility separate from other solid waste or combine the calculated rates based on accurate cost identification and total weight or volume of solid waste stream.

A park must positively identify the physical attributes of the solid waste utility so that there will be no question about what is included and excluded from the rate base. This list, once approved, may not be modified without written justification and approval by the National Program Manager.

Items in the rate base of a solid waste utility should include, but are not limited to, solid waste transfer stations, large solid waste containers, solid waste truck/trailer washing facilities, solid waste storage rooms, and recycling storage areas, including associated fencing that serve more than one user. Specialized vehicles that are owned and maintained by a park should be considered as items contributing to the rate base. All other vehicles should be considered as tools, and the costs for them should be determined by a tool rate and not be tracked as part of the rate base. All items in the rate base of a solid waste utility should have a specific estimated design life (EDL) assigned to them for the purposes of planning, implementing, and tracking component renewal and capitalization/recapitalization expenditures.

A rate structure for the solid waste utility should be set using some sort of measuring device. Normally, measurement would be achieved through a weight (or volume) system. A common measurement would be a per ton rate, although this is not mandated. The rate structure should be set up so that incurred costs can be captured in two separate ways: operations and maintenance and recapitalization/new capital improvement. Any incurred costs will be captured through a variety of methods, although using Facility Management System Software (FMSS), Financial and Business Management System (FBMS), and Project Management Information System (PMIS) data will be the databases of choice. Operations and maintenance cost recovery is generally funded out of the operations portion of the utility reimbursable account or regular park base. PMIS projects should not be included as operations and maintenance costs. Recapitalization/new capital improvement projects are normally funded out of PMIS projects and not by operations or base park funds. The work in these two categories should be amortized over the EDL of the systems on which the work is performed.

E.1 Operations and Maintenance – Typical Costs

Solid waste collection, recycling, and disposal costs will vary with the geographical distribution of the generating points, the volume generated at each location, and the distance to the disposal site. In general, calculations of operating costs should include the following:

1. All personal services, supplies, energy, fuel, and equipment repairs necessary to operate and maintain solid waste collection and disposal facilities in accordance with federal and state standards.
2. Maintenance projects necessary for the operation of the utility, regardless of the funding source.

The kinds of operation, maintenance, and minor repair costs that should be included, where appropriate, in calculating the operating costs of solid waste systems include, but are not limited to, the following:

- Direct supervision of employees (does not include costs for billing or indirect supervision, which are covered in the administrative costs markup.)
- Inspections
- Personnel and maintenance costs for collection/transportation equipment
- Personnel and maintenance costs for excavation and equipment at NPS- operated landfills
- Disposal costs at commercial disposal sites or costs for permits
- Fence repair at NPS landfills or transfer stations
- Cost of incineration or disposal outside of a park
- Cleaning of receptacles and vehicles
- Litter collection
- Weighing program to confirm weights
- Winterizing and de-winterizing of the system, including any plowing necessary to access the facilities
- Costs of recycling programs
- Cost of storage containers, bins and liners
- Costs of medical surveillance, such as hepatitis shots and personal protection equipment
- Costs of special maintenance assistance/engineers to monitor and improve performance
- Cost to maintain and repair/replace specialized fleet equipment.

E.2 Recapitalization / Capital Improvement – Typical Projects

These were previously designated as component renewal projects involving a solid waste utility and include, but are not limited to, the following:

- Major repair of transfer stations or storage buildings in the rate base
- Replacement of large numbers of solid waste containers
- Replacement of large cleaning equipment
- Replacement of large, specialized fleet vehicles
- Replacement/construction of transfer stations or solid waste storage facilities.

Appendix F: Fuel Systems Utility Business Practice

The rate base for a gas or fuel utility should include all of the physical attributes that are directly related to the acquisition, storage, measuring, and distribution of gas or fuel to all users. The gas or fuel acquisitions through the delivery process all involve physical attributes that serve all users. Distribution and small lateral lines that serve individual facilities are *not* part of the rate base, and any work, repairs or other costs should not be charged as part of the general fuel systems utility. For most purposes, that dividing line will be the gas or fuel meter at the facility.

A park must positively identify the physical attributes of the fuel utility so that there will be no question about what is included and excluded from the rate base. This list, once approved, may not be modified without written justification and approval by the National Program Manager.

Items in the rate base of a gas or fuel utility should include, but are not limited, to storage facilities, distribution lines, valves, meters, fencing, associated buildings or pads associated with the utility, and dispensing facilities for the gas or fuel utility that serve more than one user. The lines that are not included the rate base should be well defined, and the users of those lines should be made aware of the different responsibilities. Specialized vehicles that are owned and maintained by the park should be considered as items contributing to the rate base. All other vehicles should be considered as tools, and the costs for them should be determined by a tool rate and not tracked as part of the rate base. All items in the rate base of a gas or fuel utility should have a specific estimated design life (EDL) assigned to them for the purposes of planning, implementing, and tracking component renewal and capitalization/recapitalization expenditures.

A rate structure for a gas or fuel utility should be set using some sort of measuring device. Normally, measurement would be through a full metering of all facilities for both NPS and non-NPS users. A common measurement would be a set charge per cubic foot or gallon, although this is not mandated. The rate structure should be set up so that incurred costs can be captured in two separate ways: operations and maintenance and recapitalization/new capital improvement. Any incurred costs will be captured through a variety of methods, although using Facility Management System Software (FMSS), Financial and Business Management System (FBMS), and Project Management Information System (PMIS) data will be the databases of choice. Operations and maintenance cost recovery is generally funded out of the operations portion of the utility reimbursable account or regular park base. PMIS projects should not be included as operations and maintenance costs. Recapitalization/new capital improvement projects are normally funded out of PMIS projects and not by operations or base park funds. The work in these two categories should be amortized over the EDL of the systems on which the work is performed.

F.1 Operations and Maintenance – Typical Costs

The direct costs of gas and fuel supply and distribution will vary depending on the type of fuel, the length of transmission, and the size of the storage facilities. In general, calculations of operating costs should include the following:

1. All personal services, supplies, power, and equipment repairs necessary to operate and maintain fuel system facilities in accordance with federal and state standards.
2. Maintenance projects (including replacement of small equipment components of the system) necessary for the operation of the utility, regardless of the funding source.

The kinds of operation and maintenance costs that should be included, where appropriate, in calculating the operating costs of fuel systems include, but are not limited to, the following:

- Direct supervision of employees (does not include costs for billing or indirect supervision, which are covered in the administrative costs markup.)
- Inspections
- Maintenance of tanks and lines
- Maintenance of distribution lines and meters
- Winterizing and de-winterizing of the system, including any plowing necessary to access the facilities
- Painting of fuel system components
- Medical surveillance and personal protection equipment
- Special maintenance assistance/engineers to monitor and improve performance
- Fencing repairs
- Fees associated with underground or aboveground storage tanks for fuel storage
- Permitting
- Losses due to transmission
- Monitoring equipment
- Specialized fleet vehicles.

F.2 Recapitalization / Capital Improvement – Typical Projects

These were previously designated as component renewal projects involving a gas or fuel system utility and include, but are not limited to, the following:

- Replacement of meters
- Replacement of dispensing equipment
- Component renewal of roofs, etc. of buildings associated with the gas or fuel system utility
- Major fence repairs
- Replacement of cathodic protection
- Replacement of distribution lines
- Replacement of storage tanks
- Adding lines or increasing line size or adding storage facilities or increasing storage capacity
- Major fence replacement/repair
- Replacement of buildings/facilities associated with the utility.

Appendix G: Communications Systems Utility Business Practice

The rate base for a communications systems utility should include all of the physical attributes that are directly related to the acquisition, storage, measurement, and distribution of communication services to all users. The communications utilities through the delivery process all involve physical attributes that serve all users. Distribution and small lateral lines that serve individual facilities are *not* part of the rate base, and any work, repairs, or other costs should not be charged as part of the general communications utility. For most purposes, that dividing line will be the central receiving device at the facility.

A park must positively identify the physical attributes of the communications utility so that there will be no question about what is included and excluded from the rate base. This list, once approved, may not be modified without written justification and approval by the National Program Manager.

Items in the rate base of a communications utility should include, but are not limited, to transmitter stations, repeater stations or towers, standby generators and associated fuel storage, distribution lines, meters, fencing, pedestals, associated buildings or pads associated with the utility, and private branch exchange (PBX)-type facilities for the communications utility that serve more than one user. The lines that are not included the rate base should be well defined, and the users of those lines should be made aware of the different responsibilities. Handheld radios should not be part of the rate base for the communications utility. Specialized vehicles that are owned and maintained by the park should be considered as items contributing to the rate base. All other vehicles should be considered as tools, and the costs for them should be determined by a tool rate and not be tracked as part of the rate base. All items in the rate base of a communications utility should have a specific estimated design life (EDL) assigned to them for the purposes of planning, implementing, and tracking component renewal and capitalization/recapitalization expenditures.

A rate structure for a communications utility should be set using some sort of measuring device. Normally, measurement would be achieved through full metering of all facilities for both NPS and non-NPS users. A common measurement would be a set charge per specific time of use, although this is not mandated. The rate structure should be set up so that incurred costs can be captured in two separate ways: operations and maintenance and recapitalization/new capital improvement. Any incurred costs will be captured through a variety of methods, although using Facility Management System Software (FMSS), Financial and Business Management System (FBMS), and Project Management Information System (PMIS) data will be the databases of choice. Operations and maintenance cost recovery is generally funded out of the operations portion of the utility reimbursable account or regular park base. PMIS projects should not be included as operations and maintenance costs. Recapitalization/new capital improvement projects are normally funded out of PMIS projects and not by operations or base park funds. The work in these two categories should be amortized over the EDL of the systems on which the work is performed.

G.1 Operations and Maintenance – Typical Costs

The direct costs of communications systems will vary depending on the type of communication system (e.g., radio, telephone), the length of transmission, and the size of the system. In general, calculations of operating costs should include the following:

1. All personal services, supplies, power, and small equipment repairs necessary to operate and maintain communication system facilities in accordance with federal and state standards.
2. Maintenance projects (including minor replacement of equipment components of the

system) necessary for the operation of the utility, regardless of the funding source.

The kinds of operation and maintenance costs that should be included, where appropriate, in calculating the operating costs of communications systems include, but are not limited to, the following:

- Direct supervision of employees (does not include costs for billing or indirect supervision, which are covered in the administrative costs markup.)
- Inspections
- Maintenance of equipment and lines
- Maintenance of distribution lines and meters
- Painting of communication system components
- Winterizing and de-winterizing of the system, including any plowing necessary to access the facilities
- Medical surveillance and personal protection equipment
- Special maintenance assistance/engineers to monitor and improve performance
- Fencing repairs
- Fees associated with underground or aboveground storage tanks for fuel storage
- Permitting
- Losses due to transmission
- Monitoring equipment.

G.2 Recapitalization / Capital Improvement – Typical Projects

Typical These were previously designated as component renewal projects involving a communications system utility and include, but are not limited to, the following:

- Replacement of meters
- Component renewal of roofs, etc. of buildings associated with the utility
- Major fence repairs
- Replacement of cathodic protection
- Replacement of standby generators and tanks
- Replacement of distribution lines
- Adding lines or increasing line size or adding storage facilities or increasing storage capacity
- Major fence replacement/repair
- Replacement of base stations
- Additional towers or repeaters
- Associated with facilities for upgrading the available technology.

Appendix H: Utility Rate Computation Summary

UTILITY RATE COMPUTATION SUMMARY

NPS UTILITY RATE COMPUTATION

PARK NAME	BLRI
SUB PARK NAMES	
DATE PREPARED	1/20/2021
UTILITY	Water
RATE YEAR	2020
TOTAL ANNUAL UNITS PRODUCED	19,850,753 gallons
RATE UNIT	1000 gallons

OPERATIONS AND MAINTENANCE

1	PERSONAL SERVICES (PAY AND BENEFITS)	$	151,476	
2	LEAVE SURCHARGE (16% OF LINE 1)	$	24,236	
3	GSA LEASED SPACE	$	-	
4	MATERIALS, EQUIPMENT COSTS	$	7,900	
5	FEES AND CONTRACTED SERVICES	$	19,450	
6	ENERGY COSTS (INCLUDING FUEL COSTS BUT NO VEHICLE FUEL)	$	15,543	
7	TRAINING	$	10,840	
8	FLEET EXPENSES	$	-	
9	ALL OTHER EXPENDITURES	$	51,275	
10	TOTAL OF LINES 1 THROUGH 9	$	280,721	
11	INDIRECT COSTS (15% OF LINE 10)	$	42,108	
12	O&M COSTS (TOTAL OF LINE 10 AND 11)	$	322,829	
13	NUMBER OF UNITS PRODUCED		19,850,753.00	
14	**O&M RATE (LINE 12 / LINE 13 * 1000)** *(Dollars per Unit of Measure)*	$	**16.2628**	per 1000 gallons

ANNUAL CAPITAL CONTRIBUTION

15	FLEET AMORTIZATION	$	-	
16	PROJECT RECOVERY *(from Project Cost and Amortization Schedule)*	$	32,383	
17	CAPITAL RECOVERY RATE SUBTOTAL	$	32,383	
18	**CAPITAL RECOVERY RATE (LINE 17 / LINE 13 * 1000)**	$	**1.6314**	per 1000 gallons

TOTAL UTILITY RATE

19	**TOTAL RATE (LINE 14 + LINE 18)**	$	**17.8942**	per 1000 gallons

Appendix I: Estimated Design Life Tables

Standard Estimated Design Life Tables by Utility Type

Utility Type	Project Type	EDL
Water	Repaint hydrants	5
Water	Photovoltaics	20
Water	Tank cleaning and disinfection	10
Water	Filtration sand replacement	10
Water	Recoat interior/exterior of tanks	12
Water	Meter Replacement	15
Water	Water controls project	10
Water	Mech equip (meters, motors, valves, BFP, etc.)	15
Water	Electrical/ Power/ Telemetry/ Fire equipment	15
Water	Pumps (water or wastewater)	20
Water	Valve box, steel	20
Water	Water tank project	20
Water	Water pump station	20
Water	Water disinfection project	20
Water	Fire suppression project	20
Water	Water treatment project	20
Water	Tanks, metal	25
Water	Valve box, CMU	30
Water	Tanks, concrete	30
Water	Manholes	30
Water	Water system project (treatment and distribution)	30
Water	Hydrants	35
Water	Valve box, concrete	40
Water	Water piping project	50
Water	Fencing - Wood	10
Water	Signage - Wood	10
Water	Parking lots resurfaced	10
Water	Paint Bldg. Exterior	10
Water	Fencing - Metal	20
Water	Signage - Metal	20
Water	Generators	20
Water	Building exterior repair/doors	25
Water	Roofing systems	30
Water	Exterior windows	40
Water	Building exterior replace	75
Water	Meter Calibration (water or wastewater)	5

Utility Type	Project Type	EDL
Wastewater	Electrical/ Power/ Telemetry/ Fire equipment	15
Wastewater	Fencing - Wood	10
Wastewater	Signage - Wood	10
Wastewater	Parking lots resurfaced	10
Wastewater	Paint Bldg. Exterior	10
Wastewater	Fencing - Metal	20
Wastewater	Signage - Metal	20
Wastewater	Generators	20
Wastewater	Building exterior repair/doors	25
Wastewater	Roofing systems	30
Wastewater	Exterior windows	40
Wastewater	Building exterior replace	75
Wastewater	Wet well cleaning	2
Wastewater	Flush collection pipe	5
Wastewater	Replace pond media	5
Wastewater	Clean/video collection pipe	7
Wastewater	Paint plant piping	7
Wastewater	Sewer controls project	10
Wastewater	Mech equip (air compressor, motors, blowers, comminutors, screens, agitators, etc...)	15
Wastewater	Sewage ejector pumps	15
Wastewater	Disinfection injection system	20
Wastewater	Sewage/sludge lagoon upgrade project	20
Wastewater	Sewage lift station	20
Wastewater	Sewage treatment project	25
Wastewater	Metal tanks - Aeration, Clarifier, Contact, Dry Well, Wet Well	25
Wastewater	Septic system project	30
Wastewater	Concrete tanks - Aeration, Clarifier, Contact, Dry/Wet Well	30
Wastewater	Manholes/ cleanouts/ catch basins	30
Wastewater	Sewer system project (treatment and collection)	30
Wastewater	Sewer piping project	50
Wastewater	Pumper Truck	10
Wastewater	Photovoltaics	20

Utility Type	Project Type	EDL
Electrical	Meter Calibration (electrical)	10
Electrical	Photovoltaics	20
Electrical	Signage - Wood	10
Electrical	Parking lots resurfaced	10
Electrical	Paint Bldg. Exterior	10
Electrical	Fencing - Metal	20
Electrical	Signage - Metal	20
Electrical	Generators	20
Electrical	Building exterior repair/doors	25
Electrical	Roofing systems	30
Electrical	Exterior windows	40
Electrical	Building exterior replace	75
Electrical	Lighting controllers	15
Electrical	Electrical components (transfer switches, power regulators, motor starters, contactors, meters)	18
Electrical	Security components	20
Electrical	Lighting fixtures	20
Electrical	Meters	20
Electrical	Communication - transmitter, annunciator	20
Electrical	Battery (lead acid)	20
Electrical	Enclosures with bus bars	20
Electrical	Generator set battery charger	20
Electrical	Air terminals, Disconnect Switches	25
Electrical	Generator set	25
Electrical	Solar projects	30
Electrical	Transformers	40
Electrical	Replace generation and distribution	40
Electrical	Replace lighting systems	40
Electrical	Structural components (anchor/guy wires, conduit, handholes/manholes, poles, towers)	50
Electrical	Conductors/circuit breakers	50
Electrical	Battery (nickel alloy)	50
Electrical	Replace primary	50
Electrical	Replace electrical distribution	50
Electrical	Insulators/surge arrestors	60
Electrical	Fencing - Wood	10

Utility Type	Project Type	EDL
Solid Waste	Fencing - Wood	10
Solid Waste	Photovoltaics	20
Solid Waste	Parking lots resurfaced	10
Solid Waste	Paint Bldg. Exterior	10
Solid Waste	Fencing - Metal	20
Solid Waste	Signage - Metal	20
Solid Waste	Generators	20
Solid Waste	Building exterior repair/doors	25
Solid Waste	Roofing systems	30
Solid Waste	Exterior windows	40
Solid Waste	Building exterior replace	75
Solid Waste	Refuse Trucks	7
Solid Waste	Compactor Trailers	10
Solid Waste	Gas collection components - mechanical/electrical	10
Solid Waste	Leachate collection components - mechanical/ electrical	10
Solid Waste	Receptacles/moveable containers (< 5 CY)	10
Solid Waste	Stationary container, animal proof (>= 5 CY)	20
Solid Waste	Leachate collection components - piping	20
Solid Waste	Scale	20
Solid Waste	Compactor	20
Solid Waste	Leachate pond	20
Solid Waste	Gas collection components - piping	20
Solid Waste	Incinerators	25
Solid Waste	Tipping pad	30
Solid Waste	Packer Truck	10
Solid Waste	Signage - Wood	10

Utility Type	Project Type	EDL
Fuel	Pumps (fuel)	15
Fuel	Photovoltaics	20
Fuel	Signage - Wood	10
Fuel	Parking lots resurfaced	10
Fuel	Paint Bldg. Exterior	10
Fuel	Fencing - Metal	20
Fuel	Signage - Metal	20
Fuel	Generators	20
Fuel	Building exterior repair/doors	25
Fuel	Roofing systems	30
Fuel	Exterior windows	40
Fuel	Building exterior replace	75
Fuel	Clean/repaint fuel tanks	5
Fuel	High flow dispenser	10
Fuel	Cathodic Protection	20
Fuel	Storage tanks	20
Fuel	Valves	25
Fuel	Fuel delivery system	30
Fuel	Natural gas project	30
Fuel	Propane project	30
Fuel	Fencing - Wood	10

Utility Type	Project Type	EDL
Communication	Photovoltaics	20

Utility Type	Project Type	EDL
Thermal	Repaint hydrants	5
Thermal	Photovoltaics	20
Thermal	Filtration sand replacement	10
Thermal	Recoat interior/exterior of tanks	12
Thermal	Meter Replacement	15
Thermal	Mech equip (meters, motors, valves, BFP, etc.)	15
Thermal	Valve box, steel	20
Thermal	Water tank project	20
Thermal	Water pump station	20
Thermal	Water disinfection project	20
Thermal	Water treatment project	20
Thermal	Tanks, metal	25
Thermal	Tanks, concrete	30
Thermal	Manholes	30
Thermal	Water system project (treatment and distribution)	30
Thermal	Hydrants	35
Thermal	Valve box, concrete	40
Thermal	Water piping project	50
Thermal	Fencing - Wood	10
Thermal	Signage - Wood	10
Thermal	Parking lots resurfaced	10
Thermal	Paint Bldg. Exterior	10
Thermal	Fencing - Metal	20
Thermal	Signage - Metal	20
Thermal	Generators	20
Thermal	Building exterior repair/doors	25
Thermal	Roofing systems	30
Thermal	Exterior windows	40
Thermal	Building exterior replace	75
Thermal	Electrical/ Power/ Telemetry	15
Thermal	Heat Exchanger	20
Thermal	Meter Calibration (thermal)	5
Thermal	Pumps (thermal)	20
Thermal	Controls and Instrumentation project	10
Thermal	Tank cleaning and disinfection	10

Appendix J: Exception Request Checklist

1. Park Name
2. Point of contact information
3. Date of submission
4. Description of Service provided
5. Documentation of current / predicted rates (using any of the following Rate Tool reports; NPS Utility Rate Computation, NPS Water and Wastewater Combined Utility Rate Computation, NPS Utility Prospectus, or NPS Water and Wastewater Combined Utility Prospectus)
6. Documentation of the rates that were assumed at the time of the most recent contract or agreement
7. Exception Request
    a. For whom/what entity
    b. Justification
    c. What necessary/desired service does the concessioner, or other non-NPS entity, provide
    d. Analysis of financial viability
    e. Suggested waived amount
    f. Period of waiver (not to exceed 5 years or end of contract, whichever is less).

The park superintendent must submit all waiver requests through the Regional Director before being submitted to the National Program Manager; the National Program Manager will submit for review and determination to the Associate Director (AD), Park Planning, Facilities, and Lands (PPFL) and NPS Comptroller in consultation with the AD, Business Services, and the AD, Partnerships and Civic Engagement, as appropriate.

Appendix K: Metering

The most effective means for accurately measuring utility usage is by incorporating meters, especially for utilities that convey resources that can be metered, such as water or electricity. Determining usage by metering is effective for water, wastewater (based on metered water), fuel, and electrical systems. This RM will be most consistently applied with full metering of all users, including metering NPS usage. Other utilities, such as solid waste systems, are based on weight or container volume. Usage issues for utilities are addressed in specific utility business practices (see the appendices).

While it is desirable to have the most accurate measurement system in place, metering can be expensive to install. It is essential to have meters installed if a variable or differential rate structure is used in order to record the variations in usage. It is also likely to prove cost-effective to meter heavy consumers. In addition to the value of meters for determining usage, metering allows parks to maintain meticulous records of consumption, monitors periodic usage and usage patterns, and measures and identifies where system line losses are occurring.

Full and precise metering will allow the actual computation of line losses so that these losses can be distributed among all utility users. There are typically losses for utilities such as water, wastewater, and electrical/power systems. These losses should normally be within industry standards and prorated for all users. This data on usage and potential line losses may also guide operation of the system or system components at various stages of the infrastructure life cycle and will ensure operation at continued optimum efficiency for the design life of the system and its components.

Under this DO, implementing system utility charges should be based on estimates where meters do not exist, but a plan to fully meter, if at all possible, should be part of the park's utility plan. Metering should be applied to both NPS and non-NPS users. Partial occupancy can be particularly difficult to manage. From section 3, this RM:

> *For partners, cooperating associations, and other non-profit organizations, DO 35B applies to stand alone facilities, where the organization is the only occupant, where the organization occupies a dedicated portion of the facility (e.g. for office, storage space, or other uses), or facilities where there are separate meters for individual spaces. It does not apply to the facilities where those organizations are in a co-located office (i.e. in the same room) or run a small portion of the visitor center.*

When separate meters are not available, usage may be estimated based on percentage of square foot of occupancy, (especially for HVAC and power consumption); count of persons typically occupying the facility (especially for water and wastewater). The intent should be to get a reasonable estimate that accounts for partial occupancy, or full occupancy. There are industry standards for water usage per person per day based on facility utilization (residence, office, etc.).

Appendix L: Change Log

REFERENCE MANUAL TITLE: Reference Manual – 35B
Reference Manual for the Cost Recovery for National Park Service Provided Utilities

LAST CHANGE MADE ON: February 2, 2012
Updated On: February 10, 2021

#	Page #	Change Description	Reason for Change	Approved By	Approved On
1	Throughout	Updated Version	Necessary Clarification	Reviewed by AD	
2					
3					
4					