New York State
Office of Mental Health

Wards Island Utility Systems
October 30, 2008
Wards Island Utility Systems

Agenda - Utility Discussion Points

1. Existing Central Heating Plant & Distribution Systems.
3. Utility options for other Wards Island occupants.
Wards Island Utility Systems

Existing Campus Layout

- OMH buildings
- TBTA buildings
- HELP Buildings
- VOA (Volunteers of America) buildings
Wards Island Utility Systems

Agenda - Utility Discussion Points

- Existing Central Heating Plant & Distribution Systems.
Buildings that receive steam from the Power Plant for heating and/or domestic hot water purposes:
- 120-123, 13
- 64, 111
- 101-106, 108, 110

Buildings that have independent heating and domestic hot water:
- 65

Buildings that have independent hot water, but unknown heating source:
- 124-128
Buildings that receive electric from the
Power Plant Switchgear:
• 120-123, 13
• 64, 65 (via 64)
• 101, 103, 106, 114, 116

Buildings that receive electric from the
ConEd substation (Bldg 119):
• 102, 104, 105, 108, 110
• 111
• 124-128 (via 111)
Wards Island Utility Systems

Campus Utility Layout – Electric (Distributed at 4,160 Volts)

ConEd Switchgear (OMH-owned)

Power House Switchgear
All water is supplied from Manhattan, through Building 116 via the 111th Street supply header.

Water pressure supplied to Wards Island is 40-50 psig.

Four pumps increase pressure for distribution to 60-70 psig.

Normally one or two pumps in operation at any one time.
Wards Island Utility Systems

Campus Utility Layout – Sanitary Sewer

- All sanitary sewer flows to the Building 116 pumping station.
- Pumping station transfers all discharge to the Wards Island Waste Water Treatment Facility.
Wards Island Utility Systems

Campus Utility Layout – Storm

- All outfalls discharge to the neighboring waterways.
Agenda - Utility Discussion Points

Office of Mental Health (OMH) Long-term objectives for self-sustainment
OMH Long-term Program usage, includes buildings:
• 13, 119
• 101-103, 105, 106, 108, 110 114-116

Proposed continuation of lease-hold agreement areas, includes buildings:
• 120-123, 132
• 64, 111, 124-128
Wards Island Utility Systems

OMH Long-term Utility Considerations

- Steam – space heating and domestic hot water:
  - Independent boiler/heating systems to be installed and constructed to satisfy Agency needs.
  - Will not require continued use of Building 122, Power Plant. Any existing utility connections to the Power Plant to be severed and sealed.

- Electric
  - Seek to provide all OMH long-term buildings with electric power from the ConEd sub-station, Building 119 or other acceptable configuration.
  - Buildings 13, 103, 106, 114, 116 currently receive electric power from the Power Plant.
  - Investigating options for future Shared Service agreements with other Island occupants.

- Water
  - Infrastructure for self-sustainment in place.
  - Establish necessary easements for access to distribution piping in non-leased areas.
  - Investigating options for future Shared Service agreements with other Island occupants.

- Sanitary Sewer
  - Infrastructure for self-sustainment in place.
  - Establish necessary easements for access to distribution piping in non-leased areas.
  - Investigating options for future Shared Service agreements with other Island occupants.

- Storm
  - Infrastructure for self-sustainment in place.
  - Continue to assess for potential easements and other potential issues.
Utility options for other Wards Island occupants.
Utility Considerations for all non-OMH Island Occupants

1. Continued use of existing utility infrastructure:
   ✓ Least-cost option to satisfy immediate needs, allows for deferred capital investment.
   ✓ No disruption of service.
   ✓ Provides time to plan, develop and implement a future utility infrastructure.
   ✓ Maintenance staff is familiar with existing system; no need to learn the operations and maintenance requirements for a new system.

   — Given the age of the equipment and distribution system, may be prone to failure/repair.
   — As time passes, maintenance costs will increase as equipment reaches the end and then surpasses their life-cycle.
   — Any attrition of personnel will result in lost knowledge-base to maintain the existing infrastructure or support future utility capital investment decisions based on the existing infrastructure.
Utility Considerations for all non-OMH Island Occupants

2. Construct/install new utility infrastructure:
   ✓ Reduced maintenance needs with new equipment; less prone to breakdown and failure.
   ✓ Normally, newer equipment is more efficient. Equivalent or greater capacity for a given equipment size and potentially reduced energy costs.
   ✓ Mitigation or elimination of transmission and distribution losses = reduced energy costs.

   — Requires access to capital to fund implementation of new infrastructure.
   — Potential disruption to building/occupant operations. May require temporary support systems and/or locations for continuation of programs.
Questions