

Potomac River Generating Station Coordinated Sustainability Strategy

PRGS CDD Concept Plan | CDD2021-00004

City Council
March 14, 2023



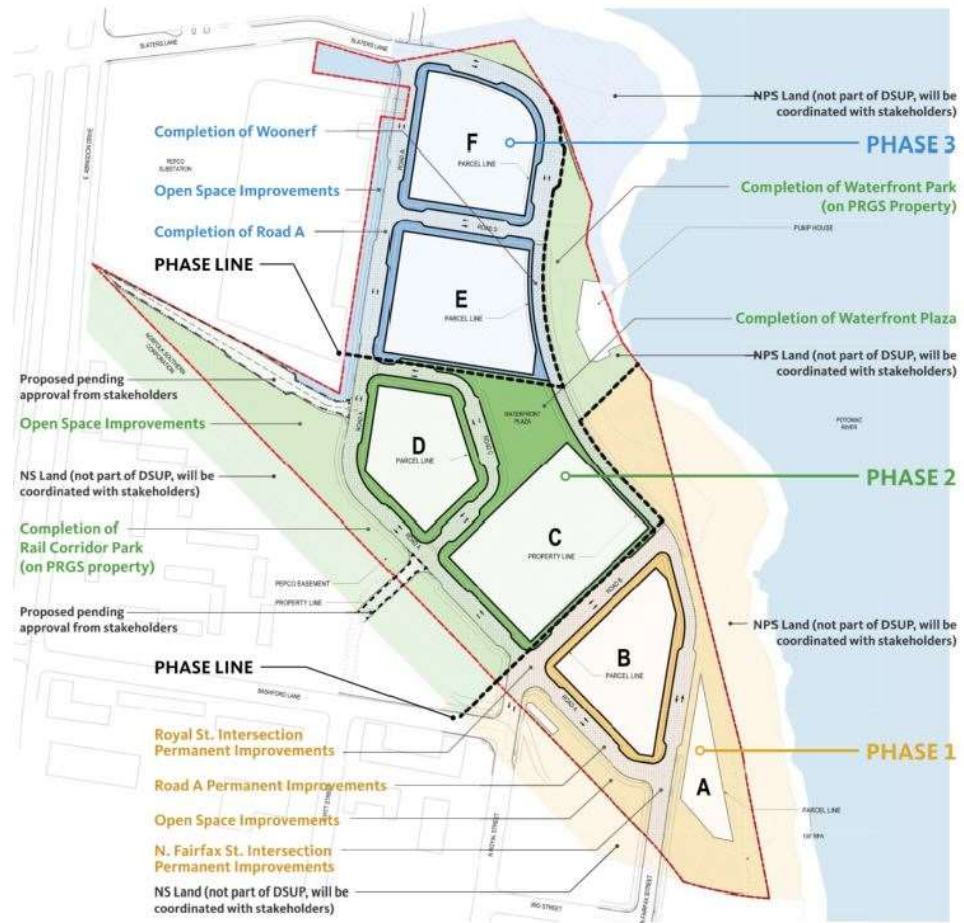
Introduction

- Old Town North Small Area Plan - 2017
 - LEED Neighborhood Development Silver
 - Carbon Neutrality
 - District Energy
 - Coordinated Sustainability Strategy (CSS)
- Alexandria Green Building Policy - 2019
- City Council's Climate Emergency Acknowledgement - 2019
- Coordinated Development District (CDD) Approval - July 2022



Staff Approach to CSS Assessment

- CDD Requirements
- What is proposed in the CSS?
- Areas for further consideration



CDD Sustainability Conditions

CONDITION	TOPIC	SUMMARY
CONDITION 139	CARBON NEUTRALITY	Site and buildings shall seek to achieve carbon neutrality through 5 targets: building operational carbon reduction, on-site renewable energy generation, building embodied carbon reduction, electric systems, and off-site renewables.
CONDITION 143	GREEN BUILDING	Comply with the Alexandria GBP in effect at time of DSUP submission.
CONDITION 144	COORDINATED SUSTAINABILITY STRATEGY	Develop a CSS prior to 2nd concept Infrastructure Development Site Plan.
CONDITION 145	COORDINATED SUSTAINABILITY STRATEGY	Outline strategies for site and building targets including energy and carbon planning, indoor environmental quality, site, public realm/streetscapes, water use management, waste management, resilience, and reporting.
CONDITION 149	ELECTRIFICATION	Demonstration compliance with electrification implementation as outlined in the EAP 2040 targets, goals and actions.
CONDITION 150	ELECTRIFICATION	Off-street parking shall provide EV charging consistent with City policies at time of DSUP submission.
CONDITION 151	ON-SITE ENERGY GENERATION	Newly constructed buildings shall be utilized to provide on-site energy to the extent feasible.
CONDITION 152	CONSTRUCTION WASTE	Provide regional construction recycling and reuse guidance with each final site plan.
CONDITION 153	REPORTING	Site-wide sustainability performance shall aggregate individual building data annually as buildings are constructed.
CONDITION 154	REPORTING	Public benchmarking through Energy Star Portfolio Manager results for each new building shall be submitted.

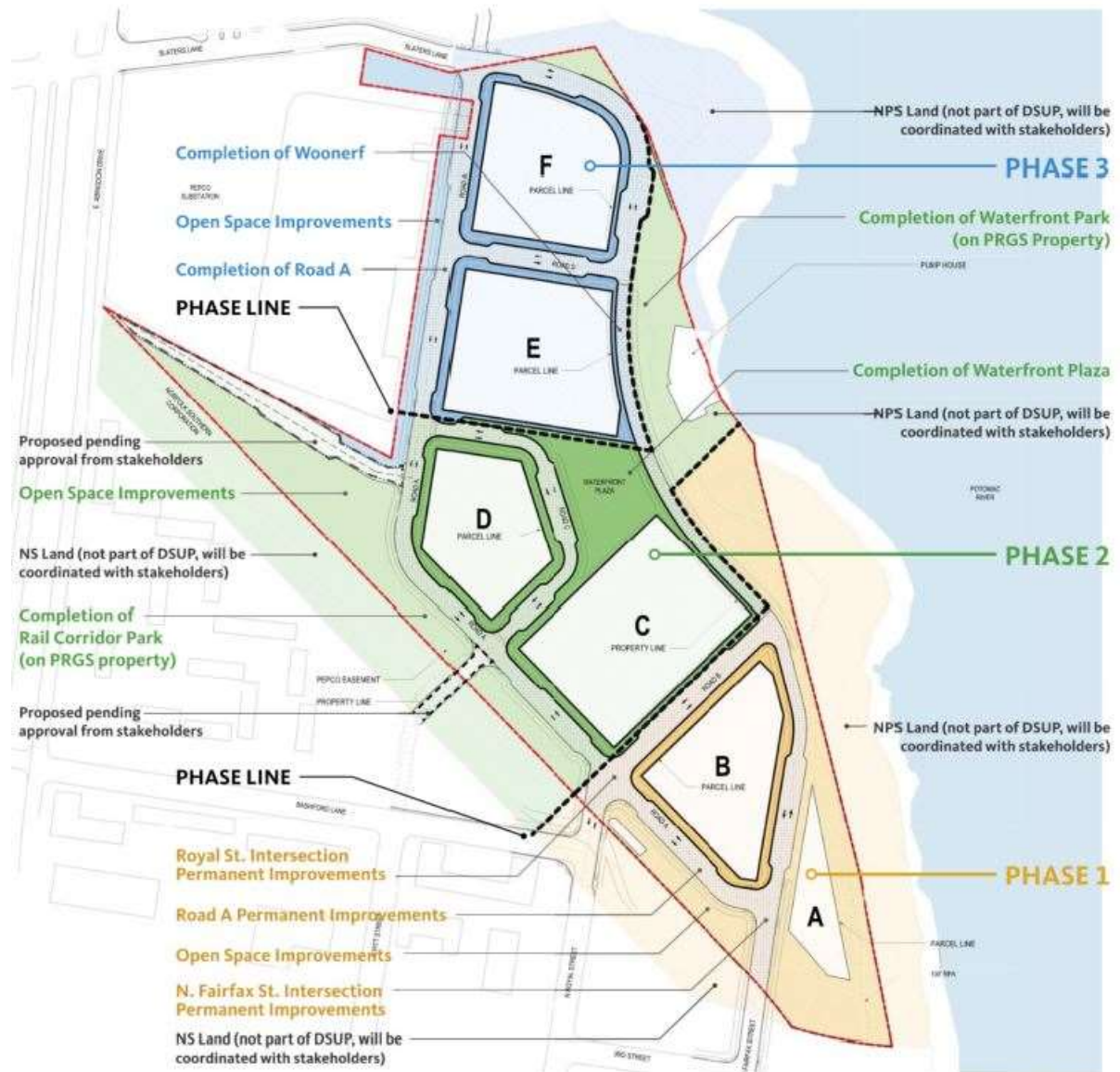
Strategies

- Powerplant/Site Remediation
- Additional Areas of Open Space
- Transportation/Stormwater Infrastructure
- 3% Onsite Renewable Energy Generation
- All-electric Buildings
- Embodied Carbon Reductions
- Reporting on Building Performance



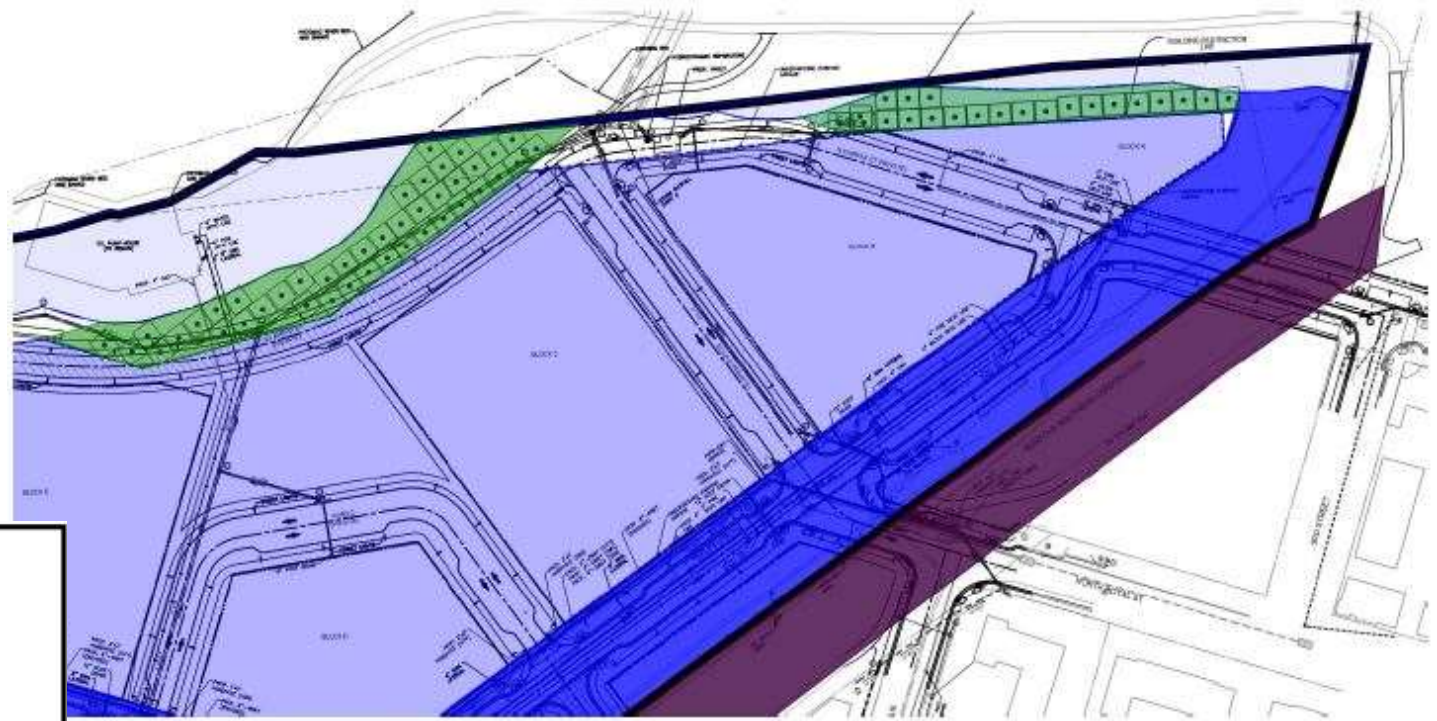
Staff Position

- Comprehensive Submission
- CDD Requirements are being met
- Areas for further consideration








District Energy Systems

- Further explore systems in the project's public and open space areas
- Infrastructure DSP



LEGEND:

-  AVAILABLE AREA FOR GEOTHERMAL WELLS
-  RESOURCE PROTECTION AREA
-  UNDERGROUND PARKING GARAGE
-  SITE UTILITIES FOR PEPCO SUBSTATION AND PRGS REDEVELOPMENT
-  AREAS OUTSIDE OF PRGS PROPERTY LINES: PEPCO SUBSTATION, NORFOLK SOUTHERN

Microgrid and Battery Storage

Battery Energy Storage System (BESS) in the Future

- Is there space to install BESS in the future if/when it does become feasible?
- If so, where?

Topics For Discussion

Future-Proofing

District Energy

- Explore systems in the project's public and open space areas
- Indicate areas in Infrastructure DSP

Microgrid and Battery Storage

- Where would battery storage be located if deemed feasible in the future?