



CITY OF PATERSON, NJ AND GREAT FALLS HYDROELECTRIC COMPANY

JOINT AGENCY / STAKEHOLDER MEETING

AUGUST 3, 2016

WELCOME AND INTRODUCTIONS

KEY PERSONNEL

- **EAGLE CREEK RENEWABLE ENERGY**
 - BOB GATES
 - MICHAEL SCARZELLO
 - SUSAN GIANANTE
- **CITY OF PATERSON**
- **YOUNG ENERGY SERVICES (YES)**
 - KEVIN YOUNG
 - ADAM CONNOLLY
- **AGENCY PERSONNEL**

PURPOSE

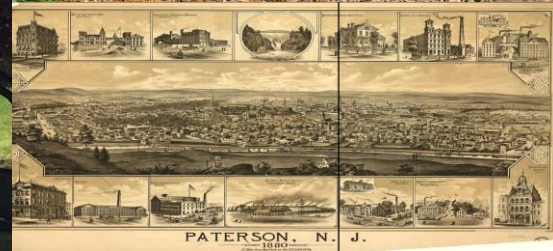
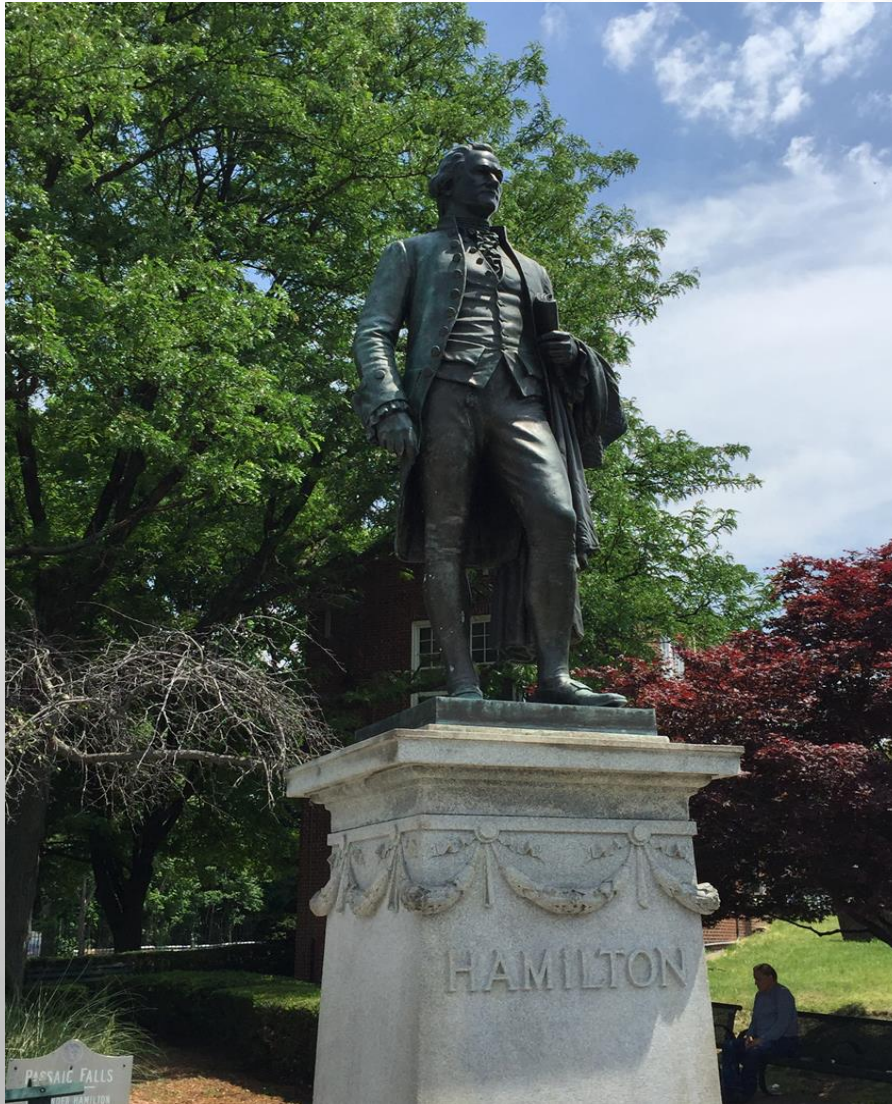
- TO INFORM AGENCIES AND THE PUBLIC ABOUT THE PROJECT AND TO SEEK FEEDBACK
- JOINT MEETING IS REQUIRED BY **18 CFR 4.38(B) OF THE FEDERAL POWER ACT**
- OPEN TO THE PUBLIC AND RECORDED

AGENDA

- PROJECT OVERVIEW
- DESCRIPTION OF THE PROJECT
- FERC LICENSING PROCESS
- OVERVIEW OF PAD FILED WITH THE FERC
- DISCUSS ANY ISSUES AND REQUESTED STUDIES TO BE CONDUCTED BY THE CO-LICENSEES
- SCHEDULE AND DOCUMENT DEVELOPMENT TIMEFRAME
- COMMENTS

PATERSON, NEW JERSEY

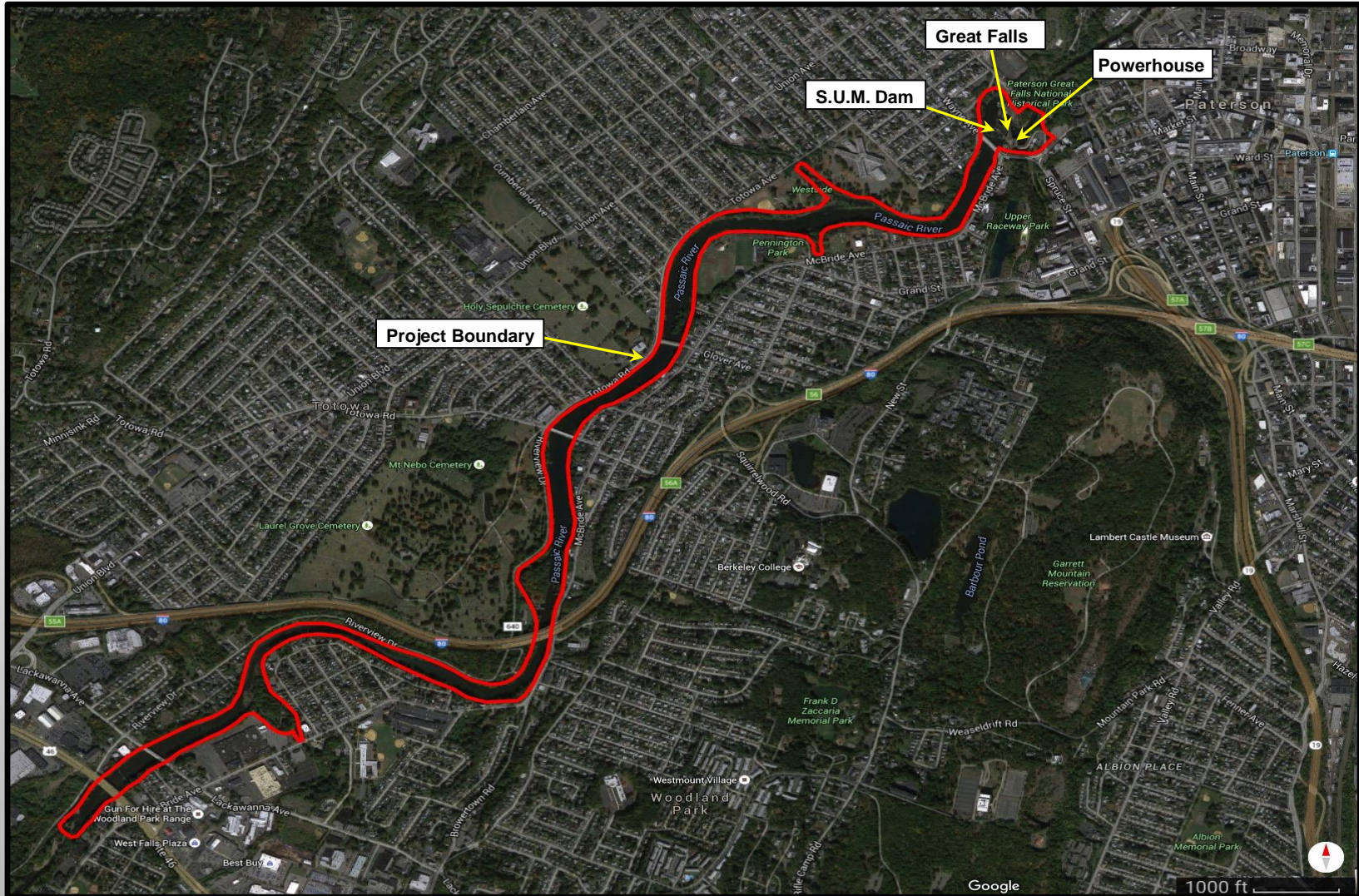
RICH WITH HISTORY



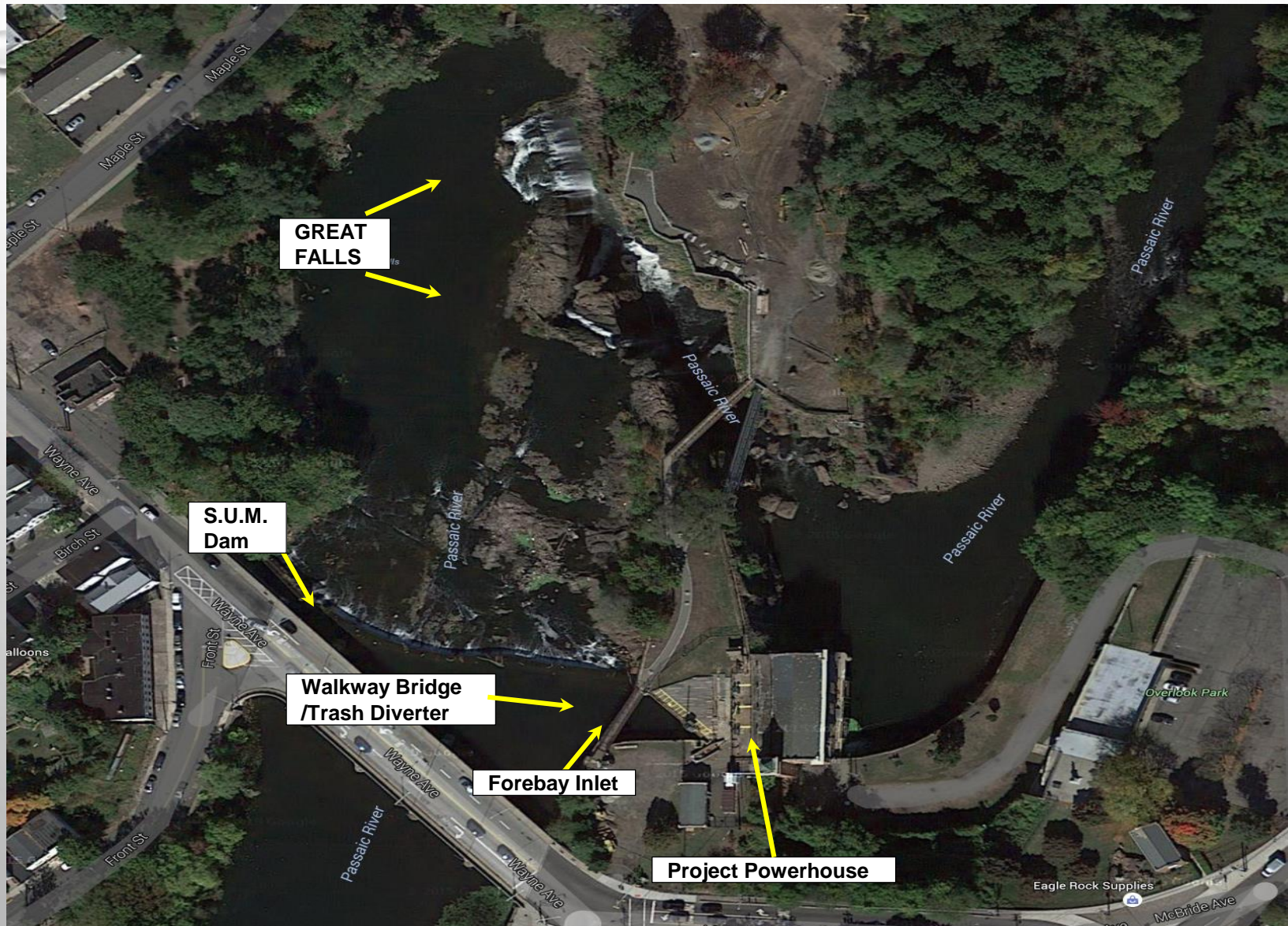
HISTORY OF THE PROJECT

- 1791 PIERRE L'ENFANT SOCIETY OF USEFUL MANUFACTURERS
- 1794 PETER COLT – RESERVOIR BASED SYSTEM
- 1846 SUM RETURNS TO L'ENFANT PLAN OF AQUEDUCTS
- 1914 END OF SUM; BEGINNING OF THOMAS EDISON'S 4,849 KW HYDRO PLANT
- 1969 4 UNIT STATION OPERATIONS ENDS
- 1976 DECLARED A NATIONAL HISTORIC LANDMARK
- 1986 PLANT RESTORED W/ 3 TURBINES; TOTAL 10,950 KW
- 2011 DECLARED A NATIONAL HISTORIC PARK
- 2013 EAGLE CREEK PURCHASES GREAT FALLS HYDRO COMPANY, LLC INTERESTS
- 2016 RELICENSING PROJECT INITIATED W/ FEDERAL ENERGY REGULATORY COMMISSION
- 2021 FEDERAL LICENSE RENEWAL EXPECTED

PROJECT BOUNDARY



PROJECT AERIAL



OVERVIEW OF THE PROJECT

THE PROJECT WORKS APPROVED IN 1986 AS PART OF THE CURRENT FERC LICENSE CONSIST OF:

- (A) AN OVERFLOW GRANITE STONE GRAVITY DAM APPROXIMATELY 315 FEET LONG, WITH A MAXIMUM HEIGHT OF 15 FEET AND HAVING A CREST ELEVATION OF 114.6 FEET MEAN SEA LEVEL (MSL) AND 27 INCH BREAKAWAY FLASHBOARDS;
- (B) A FOREBAY INLET STRUCTURE;
- (C) A RESERVOIR WITH NEGLIGIBLE STORAGE AT SPILLWAY CREST ELEVATION 116.85 FEET (MSL);
- (D) A WALKWAY, BRIDGE, AND A TRASH DIVERTER;
- (E) A HEADGATE CONTROL STRUCTURE CONTAINING ONE SET OF TRASHRACKS WITH AN AUTOMATIC CLEANER AND THREE STEEL HEAD GATES;
- (F) THREE PENSTOCKS, EACH 8.5 FEET IN DIAMETER AND APPROXIMATELY 55 FEET LONG;
- (G) A CONCRETE POWERHOUSE CONTAINING THREE TURBINE/GENERATORS WITH A TOTAL RATED CAPACITY OF 10.95 MW;
- (H) A 37 FOOT-LONG, 4.16 KV UNDERGROUND CABLE CONNECTING THE POWERHOUSE TO A 4.16/26.4 KV STEP-UP TRANSFORMER, TYING INTO THE CITY OF PATERSON'S PUBLIC SERVICE ELECTRIC AND GAS COMPANY (PSE&G) SUBSTATION VIA A 1,500 FOOT-LONG, 26.4 KV UNDERGROUND AND AERIAL CABLE;

GREAT FALLS



GREAT FALLS POWER STATION



OVERVIEW OF THE PROJECT

(CONTINUED)

OPERATIONS

- RUN-OF-RIVER OPERATION WITH A MAXIMUM OPERATING FLOW CAPACITY OF 2,130 CFS.
- UNDER NORMAL FLOW CONDITIONS THE PROJECT RESERVOIR WILL NORMALLY VARY BETWEEN 114.5 -115.9 MSL WITH ALL FLOWS BETWEEN 200 CFS AND 2,130 CFS DIVERTED THROUGH THE TURBINES.
- LICENSE ARTICLE 27** REQUIRES THE CO-LICENSEES TO DISCHARGE AN INTERIM CONTINUOUS MINIMUM FLOW OF 200 CFS OR THE INFLOW TO THE PROJECT RESERVOIR, WHICHEVER IS LESS, OVER THE GREAT FALLS FOR THE PURPOSE OF MAINTAINING WATER QUALITY, THE SCENIC VALUES OF THE GREAT FALLS, AND THE LOCAL FISH AND WILDLIFE RESOURCES.

GREAT FALLS HYDRO GENERATORS



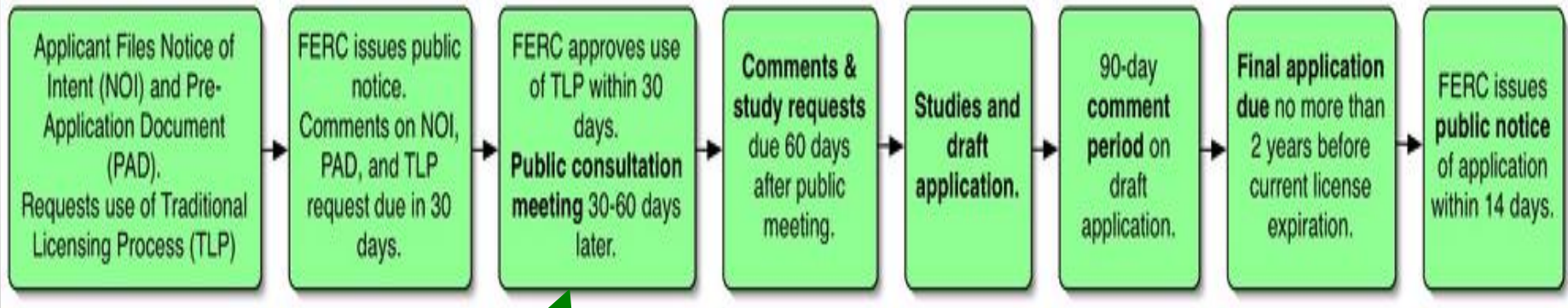
OVERVIEW OF THE PROJECT

(CONTINUED)

PROPOSED PROJECT OPERATIONS:

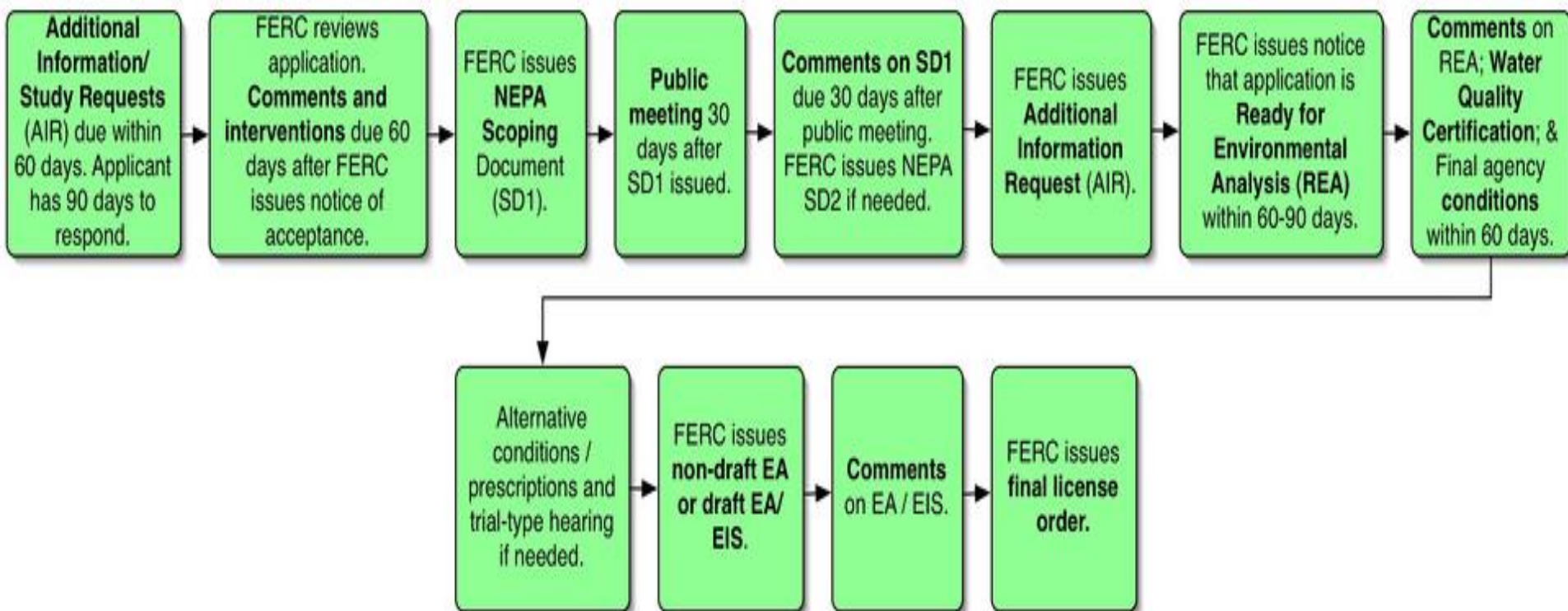
THE CO-LICENSEES ARE PROPOSING
NO CHANGES TO THE CURRENT
PROJECT'S LICENSED OPERATIONS.

OVERVIEW OF THE TLP PROCESS FOR HYDROPOWER LICENSING (PRE-FILING)



We Are Here!

OVERVIEW OF THE TLP PROCESS FOR HYDROPOWER LICENSING (POST-FILING)

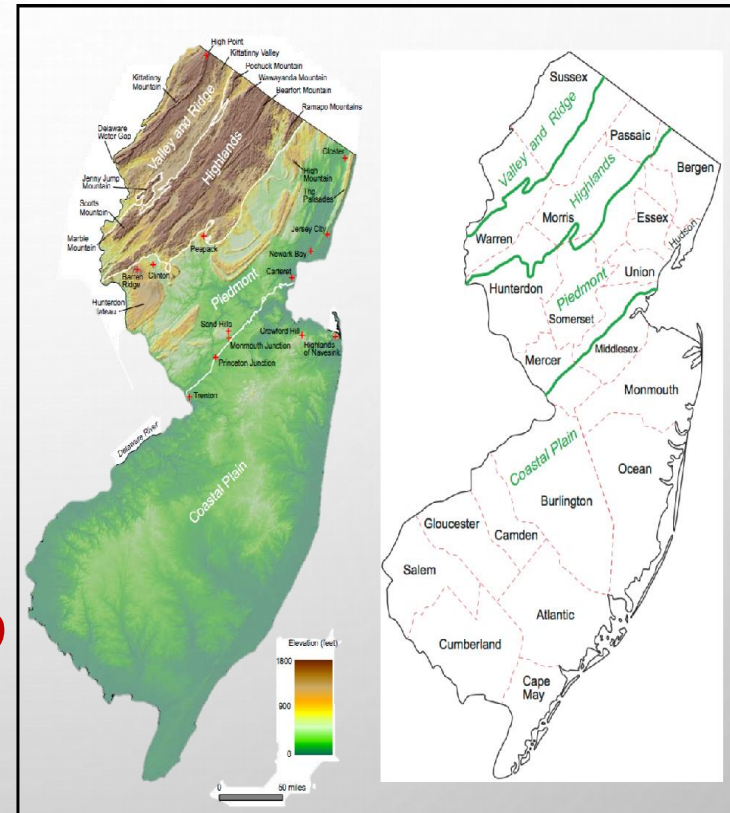


OVERVIEW OF THE PAD

- **GEOLOGY, TOPOGRAPHY, AND SOILS**
- **WATER RESOURCES**
- **FISH AND AQUATIC RESOURCES**
- **WILDLIFE AND BOTANICAL RESOURCES**
- **WETLANDS, RIPARIAN, AND LITTORAL HABITAT**
- **RARE, THREATENED, AND ENDANGERED SPECIES**
- **RECREATION AND LAND USE**
- **AESTHETIC RESOURCES**
- **CULTURAL AND HISTORIC RESOURCES**
- **SOCIOECONOMIC RESOURCES**
- **TRIBAL RESOURCES**

GEOLOGY, TOPOGRAPHY AND SOILS

- **18 C.F.R. § 5.6(D)(3)(II)**
**REQUIRES DESCRIPTIONS
AND MAPS SHOWING THE
EXISTING GEOLOGY,
TOPOGRAPHY, AND
SOILS OF THE PROPOSED
PROJECT AND
SURROUNDING AREA.**



**PAD Figure 5.3: Shaded Relief and
Physiography**

WATER RESOURCES

- **18 C.F.R. §5.6(D)(3)(III)**
REQUIRES A DESCRIPTION
OF THE WATER RESOURCES
OF THE PROPOSED
PROJECT AND
SURROUNDING AREA.



PAD Figure 5.6: Passaic River Watershed 19

WATER RESOURCES

401 WATER QUALITY CERTIFICATION

- THE PROJECT WAS ISSUED A CONDITIONAL 401(A)(1) WATER QUALITY CERTIFICATE (80 - 4 - 5) BY THE NJDEP ON JULY 30, 1980.
- THE NJDEP DETERMINED THE PROJECT WOULD BE CONDUCTED IN A MANNER, WHICH **WILL NOT** VIOLATE APPLICABLE WATER QUALITY STANDARDS OF THE STATE OF NEW JERSEY, AS LONG AS THE SPECIFIC CONDITIONS WITHIN THE 401 ARE SATISFIED.

FISH AND AQUATIC RESOURCES

- **18 C.F.R. §5.6(D)(3)(IV)**

***A DESCRIPTION OF THE
FISH AND OTHER AQUATIC
RESOURCES, INCLUDING
INVASIVE SPECIES, IN THE
PROJECT VICINITY.***



Project Fish Passage Device

WILDLIFE AND BOTANICAL RESOURCES

- **18 C.F.R. §5.6(D)(3)(V)**
REQUIRES A DESCRIPTION
OF THE WILDLIFE AND
BOTANICAL RESOURCES,
INCLUDING INVASIVE SPECIES,
IN THE PROJECT VICINITY.



FLOODPLAINS, WETLANDS, RIPARIAN, AND LITTORAL HABITATS

- **18 C.F.R. §5.6(D)(3)(VI) -
DESCRIPTION OF
FLOODPLAINS, WETLANDS,
RIPARIAN, AND
LITTORAL HABITAT**



RARE, THREATENED, AND ENDANGERED SPECIES

- **18 C.F.R. §5.6(D)(3)(VII)**

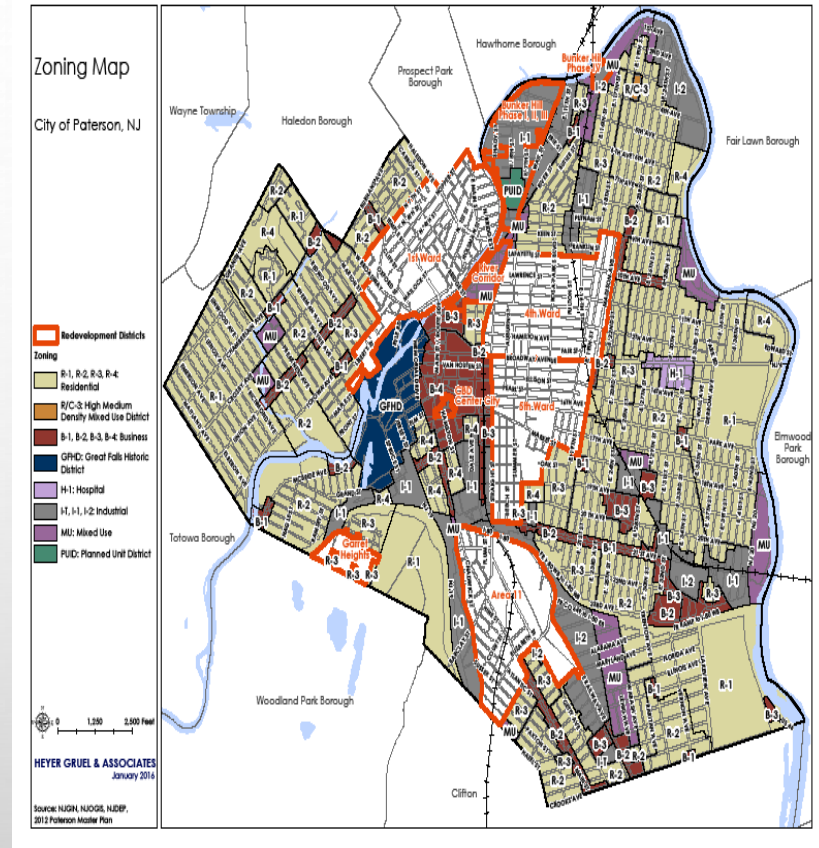
**REQUIRES A DESCRIPTION
OF ANY LISTED RARE,
THREATENED AND
ENDANGERED, CANDIDATE,
OR SPECIAL STATUS SPECIES THAT MAY BE
PRESENT IN THE PROJECT VICINITY.**



RECREATION AND LAND USE

- **18 C.F.R. §5.6(D)(3)(VIII)**

**REQUIRES A DESCRIPTION OF
THE EXISTING RECREATIONAL
AND LAND USES AND
OPPORTUNITIES WITHIN THE
PROJECT BOUNDARY.**



AESTHETIC RESOURCES

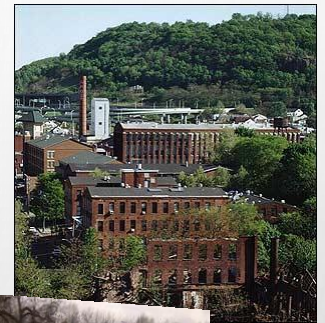
***18 C.F.R. §5.6(D)(3)(VIII)
REQUIRES A DESCRIPTION
OF THE OF THE VISUAL
CHARACTERISTICS OF
THE LANDS AND WATERS
AFFECTED BY THE PROJECT.***



CULTURAL AND HISTORIC RESOURCES

- **18 C.F.R. §5.6(D)(3)(X)**

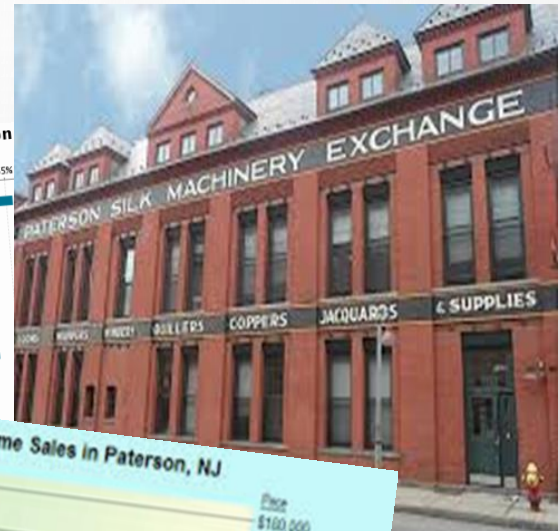
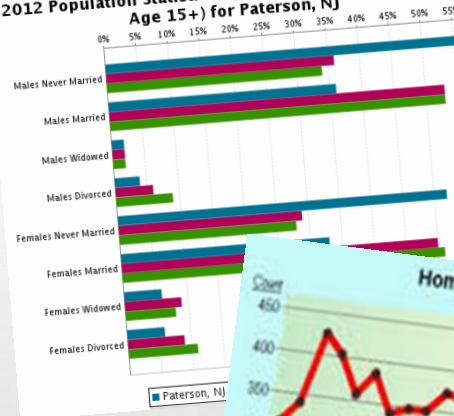
**REQUIRES A
DESCRIPTION OF THE
KNOWN CULTURAL OR
HISTORICAL RESOURCES
OF THE PROPOSED PROJECT
AND SURROUNDING AREA.**



SOCIOECONOMIC RESOURCES

- **18 C.F.R. §5.6(D)(3)(XI)**
REQUIRES A GENERAL
DESCRIPTION OF
SOCIO-ECONOMIC
CONDITIONS IN THE
VICINITY OF THE PROJECT.

2012 Population Statistics by Marital Status (Population Age 15+) for Paterson, NJ



TRIBAL RESOURCES

- **18 C.F.R. §5.6(D)(3)(XII)**
REQUIRES A DESCRIPTION
OF INDIAN TRIBES, TRIBAL
LANDS, AND INTERESTS
THAT MAY BE AFFECTED
BY THE PROJECT.



REVIEW OF ANY POTENTIAL STUDIES

THE PROJECT WILL CONTINUE TO OPERATE WITH
RUN-OF-THE RIVER OPERATIONS AND ***NO CHANGES***
TO LICENSED CONDITIONS PROPOSED.

STUDIES CONSIDERED TO DATE INCLUDE:

- ✓ ASSESSMENT OF AESTHETIC FLOWS OVER THE FALLS
- ✓ RECREATION USE OF THE PARKS AREA

FERC STUDY CRITERIA

- ✓ DESCRIBE THE GOALS AND OBJECTIVES OF EACH STUDY PROPOSAL AND THE INFORMATION TO BE OBTAINED
- ✓ IF APPLICABLE, EXPLAIN THE RELEVANT RESOURCE MANAGEMENT GOALS OF THE AGENCY OR INDIAN TRIBE WITH JURISDICTION OVER THE RESOURCE TO BE STUDIED
- ✓ IF THE REQUESTER IS NOT A RESOURCE AGENCY, EXPLAIN ANY RELEVANT PUBLIC INTEREST CONSIDERATIONS IN REGARD TO THE PROPOSED STUDY
- ✓ DESCRIBE EXISTING INFORMATION CONCERNING THE SUBJECT OF THE STUDY PROPOSAL, AND THE NEED FOR ADDITIONAL INFORMATION

FERC STUDY CRITERIA

(CONTINUED)

- ✓ EXPLAIN ANY NEXUS BETWEEN THE PROJECT OPERATIONS AND THE EFFECTS (DIRECT, INDIRECT AND/OR CUMULATIVE) ON THE RESOURCE TO BE STUDIED AND HOW THE STUDY RESULTS WOULD BE USED IN RELICENSING OF THIS PROJECT
- ✓ EXPLAIN HOW ANY PROPOSED STUDY METHODOLOGY IS CONSISTENT WITH GENERALLY ACCEPTED PRACTICE IN THE SCIENTIFIC COMMUNITY
- ✓ DESCRIBE CONSIDERATION OF LEVEL OF EFFORT AND COST, AS APPLICABLE, AND WHY ANY PROPOSED ALTERNATIVE STUDIES OR MITIGATION WOULD NOT BE SUFFICIENT TO MEET THE STATED INFORMATION NEEDS.

SCHEDULE AND DOCUMENT DEVELOPMENT TIMEFRAME

GREAT FALLS HYDROELECTRIC PROJECT P-2814

- ✓ NOI/PAD FILED WITH FERC – **FEBRUARY 26, 2016**
- ✓ FERC RECOGNIZED NOI/PAD AND GRANTED REQUEST TO USE TLP – **APRIL 28, 2016**
- ✓ PROVIDED FERC NOTICE OF JOINT AGENCY/STAKEHOLDER MEETING – **BY JULY 20, 2016**
- ✓ CONDUCTED JOINT AGENCY/STAKEHOLDER MEETING – **AUGUST 3, 2016**
- FILE COMMENTS ON THE PAD AND STUDY REQUESTS, IF ANY, WITH GREAT FALLS HYDRO – *60 DAYS AFTER JOINT MEETING* **BY OCTOBER 3, 2016**

• **SCHEDULE AND DEVELOPMENT TIMEFRAME** (CONTINUED)

- CONDUCT STUDIES, *AS NEEDED (2017)*
- ISSUE STUDY REPORT(S) TO STAKEHOLDERS **(2017)**
- ISSUE DRAFT LICENSE APPLICATION TO STAKEHOLDERS **(EARLY 2018)**
- FILE COMMENTS ON DRAFT LICENSE APPLICATION WITHIN 90 DAYS **(MID 2018)**
- FILE FINAL LICENSE APPLICATION WITH THE FERC ***ON OR BEFORE FEBRUARY 28, 2019***

COMMENTS OR QUESTIONS?

PLEASE SEND ANY COMMENTS OR QUESTIONS TO:

KEVIN YOUNG

KYOUNG@YOUNGENERGYSERVICES.COM

(617) 645-3658