

Appendix E

Draft Exhibit G Project Maps

Application for New License
Major Project – Existing Dam

Exhibit G
Project Maps

Security Level: Public

Narrows Hydroelectric Project
FERC Project No. 1403



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EXHIBIT G

PROJECT MAPS

1.0 Introduction

The Yuba County Water Agency (YCWA or Licensee) has prepared this Exhibit G, Project Maps, as part of its Application for a New License Major Project – Existing Dam – (FLA) from the Federal Energy Regulatory Commission (FERC or Commission) for the Narrows Hydroelectric Project (Project), FERC Project Number (No.) 1403. This exhibit is prepared in conformance with Title 18 of the Code of Federal Regulations (C.F.R.), Subchapter B (Regulations under the Federal Power Act), Part 4 (Licenses, Permits, Exemptions and Determination of Project Costs), Subpart F and, as applicable, Part 16 (traditional process). In particular, this exhibit conforms to the regulations in 18 C.F.R. Section 4.51(f), which directs an applicant to 18 C.F.R. Section 4.41(f), which describes the contents of Exhibit G, Project Maps, and Section 4.41(f) references Section 4.39, Specifications for maps and drawings. This Exhibit G provides a map that shows the location of the existing Project and principal features, the Project Boundary and land ownership within the boundary, and any changes to existing Project Boundary that YCWA proposes under the new license. As a reference, 18 C.F.R. Section 4.41(g) and Section 4.39 state:

18 C.F.R. § 4.41(g): Exhibit G is a map of the project that must conform to the specifications of § 4.39. In addition, to the other components of Exhibit G, the applicant must provide the project boundary data in a geo-referenced electronic format - such as ArcView shape files, GeoMedia files, MapInfo files, or any similar format. The electronic boundary data must be positionally accurate to ± 40 feet, in order to comply with the National Map Accuracy Standards for maps at a 1:24,000 scale (the scale of USGS quadrangle maps). The electronic Exhibit G data must include a text file describing the map projection used (*i.e.*, UTM, State Plane, Decimal Degrees, etc.), the map datum (*i.e.*, feet, meters, miles, etc.). Three sets of the maps must be submitted on compact disk or other appropriate electronic media. If more than one sheet is used for the paper maps, the sheets must be numbered consecutively, and each sheet must bear a small insert sketch showing the entire project and indicate that portion of the project depicted on that sheet. Each sheet must contain a minimum of three known reference points. The latitude and longitude coordinates, or state plane coordinates, of each reference point must be shown. If at any time after the application is filed there is any change in the project boundary, the applicant must submit, within 90 days following the completion of project construction, a final exhibit G showing the extent of such changes. The map must show:

- (1) *Location of the project and principal features.* The map must show the location of the project as a whole with reference to the affected stream or other body of water and, if possible, to a nearby town or any other permanent monuments or objects, such as roads, transmission lines or other structures, that can be noted on the map and recognized in the field. The map must also show the relative locations and physical interrelationships of the principal project works and other features described under paragraph (b) of this section (Exhibit A).
- (2) *Project boundary.* The map must show a project boundary enclosing all project works and other features described under paragraph (b) of this section (Exhibit A) that are to be licensed. If accurate survey information is not available at the time the application is filed, the applicant must so state, and a tentative boundary may be submitted. The boundary must enclose only those lands necessary for operation and maintenance of the project and for other project purposes, such as recreation, shoreline control, or protection of environmental resources (*see* paragraph (f) of this section (Exhibit E)). Existing residential, commercial, or other structures may be included within the boundary only to the extent that underlying lands are needed for project purposes (e.g., for flowage, public recreation, shoreline control, or protection of environmental resources). If the boundary is on

land covered by a public survey, ties must be shown on the map at sufficient points to permit accurate platting of the position of the boundary relative to the lines of the public land survey. If the lands are not covered by a public land survey, the best available legal description of the position of the boundary must be provided, including distances and directions from fixed monuments or physical features. The boundary must be described as follows:

- (i) *Impoundments.*
 - (A) The boundary around a project impoundment must be described by one of the following:
 - (1) Contour lines, including the contour elevation (preferred method);
 - (2) Specified courses and distances (metes and bounds);
 - (3) If the project lands are covered by a public land survey, lines upon or parallel to the lines of the survey; or
 - (4) Any combination of the above methods.
 - (B) The boundary must be located no more than 200 feet (horizontal measurement) from the exterior margin of the reservoir, defined by the normal maximum surface elevation, except where deviations may be necessary in describing the boundary according to the above methods or where additional lands are necessary for project purposes, such as public recreation, shoreline control, or protection of environmental resources.
- (ii) *Continuous features.* The boundary around linear (“continuous”) project features such as access roads, transmission lines, and conduits may be described by specified distances from center lines or offset lines of survey. The width of such corridors must not exceed 200 feet unless good cause is shown for a greater width. Several sections of a continuous feature may be shown on a single sheet with information showing the sequence of contiguous sections.
- (iii) *Noncontinuous features.*
 - (A) The boundary around noncontinuous project works such as dams, spillways, and powerhouses must be described by one of the following:
 - (1) Contour lines;
 - (2) Specified courses and distances;
 - (3) If the project lands are covered by a public land survey, lines upon or parallel to the lines of the survey; or
 - (4) Any combination of the above methods.
 - (B) The boundary must enclose only those lands that are necessary for safe and efficient operation and maintenance of the project or for other specified project purposes, such as public recreation or protection of environmental resources.
- (3) *Federal lands.* Any public lands and reservations of the United States (“Federal lands”) [see 16 U.S.C. 795(1) and (2)] that are within the project boundary, such as lands administered by the U.S. Forest Service, Bureau of Land Management, or National Park Service, or Indian tribal lands, and the boundaries of those Federal lands, must be identified as such on the map by:
 - (i) Legal subdivisions of a public land survey of the affected area (a protraction of identified township and section lines is sufficient for this purpose); and
 - (ii) The Federal agency, identified by symbol or legend, that maintains or manages each identified subdivision of the public land survey within the project boundary; or
 - (iii) In the absence of a public land survey, the location of the Federal lands according to the distances and directions from fixed monuments or physical features. When a Federal survey monument or a Federal bench mark will be destroyed or rendered unusable by the construction of project works, at least two permanent, marked witness monuments or bench marks must be established at accessible points. The maps show the location (and elevation, for bench marks) of the survey monument or bench mark which will be destroyed or rendered unusable, as well as of the witness monuments or bench marks. Connecting courses and distances from the witness monuments or bench marks to the original must also be shown.

- (iv) The project location must include the most current information pertaining to affected Federal lands as described under §4.81(b)(5).
- (4) *Non-Federal lands.* For those lands within the project boundary not identified under paragraph (h)(3) of this section, the map must identify by legal subdivision:
 - (i) Lands owned in fee by the applicant and lands that the applicant plans to acquire in fee; and
 - (ii) Lands over which the applicant has acquired or plans to acquire rights to occupancy and use other than fee title, including rights acquired or to be acquired by easement or lease.

18 C.F.R. § 4.39: Specifications for maps and drawings. All required maps and drawings must conform to the following specifications, except as otherwise prescribed in this chapter:

- (a) Each original map or drawing must consist of a print on silver or gelatin 35mm microfilm mounted on Type D (3 1/4" by 7 3/8") aperture cards. Full-sized prints of maps and drawings must be on sheets no smaller than 24 by 36 inches and no larger than 28 by 40 inches. A space five inches high by seven inches wide must be provided in the lower right hand corner of each sheet. The upper half of this space must bear the title, numerical and graphical scale, and other pertinent information concerning the map or drawing. The lower half of the space must be left clear. Exhibit G drawings must be stamped by a Registered Land Surveyor. If the drawing size specified in this paragraph limits the scale of structural drawings (exhibit F drawings) described in paragraph (c) of this Section, a smaller scale may be used for those drawings. Potential applicants or licensees may be required to file maps or drawings in electronic format as directed by the Commission.
- (b) Each map must have a scale in full-sized prints no smaller than one inch equals 0.5 miles for transmission lines, roads, and similar linear features and no smaller than one inch equals 1,000 feet for other project features, including the project boundary. Where maps at this scale do not show sufficient detail, large scale maps may be required. Each map must show:
 - (1) True and magnetic meridians;
 - (2) State, county, and town lines; and
 - (3) Boundaries of public lands and reservations of the United States [see 16 U.S.C. 796 (1) and (2)], if any. If a public land survey is available, the maps must show all lines of that survey crossing the project area and all official subdivisions of sections for the public lands and reservations, including lots and irregular tracts, as designated on the official plats of survey that may be obtained from the Bureau of Land Management, Washington, D.C., or examined in the local land survey office; to the extent that a public land survey is not available for public lands and reservations of the United States, the maps must show the protractions of townships and section lines, which, if possible, must be those recognized by the Federal agency administering those lands.
- (c) Drawings depicting details of project structures must have a scale in full-sized prints no smaller than:
 - (1) One inch equals 50 feet for plans, elevations, and profiles; and
 - (2) One inch equals 10 feet for sections.
- (d) Each map or drawing must be drawn and lettered to be legible when it is reduced to a print that is 11 inches on its shorter side. Following notification to the applicant that the application has been accepted for filing [see §4.31(c)], prints reduced to that size must be bound in each copy of the application which is required to be submitted to the Commission or provided to any person, agency, or other entity.
- (e) The maps and drawings showing project location information and details of project structures must be filed in accordance with the Commission's instructions on submission of Critical Energy Infrastructure Information in §§388.112 and 388.113 of subchapter X of this chapter.

Besides this introductory material, this Exhibit G includes three sections. Section 2.0 describes Project maps in the existing license, Section 3.0 states any changes to the Project Boundary proposed by YCWA at this time, and Section 4.0 includes a list of references cited in this exhibit.

All elevation data in this exhibit is in United States Department of Commerce, National Oceanic and Atmospheric Association, National Geodetic Survey Vertical Datum of 1929 (NGVD 29), unless otherwise stated.

2.0 Existing Project Maps and Federal Lands

The existing FERC license includes one Project Map: Exhibit G-1, Map of Area Included in Narrows Hydroelectric Project. FERC approved the map in an order dated August 7, 2019, and assigned the map drawing number P-1403-30. The map includes a summary of land ownership by section, and is included here in Attachment G-1 to this exhibit.

3.0 YCWA's Proposed Changes to Existing Project Boundary

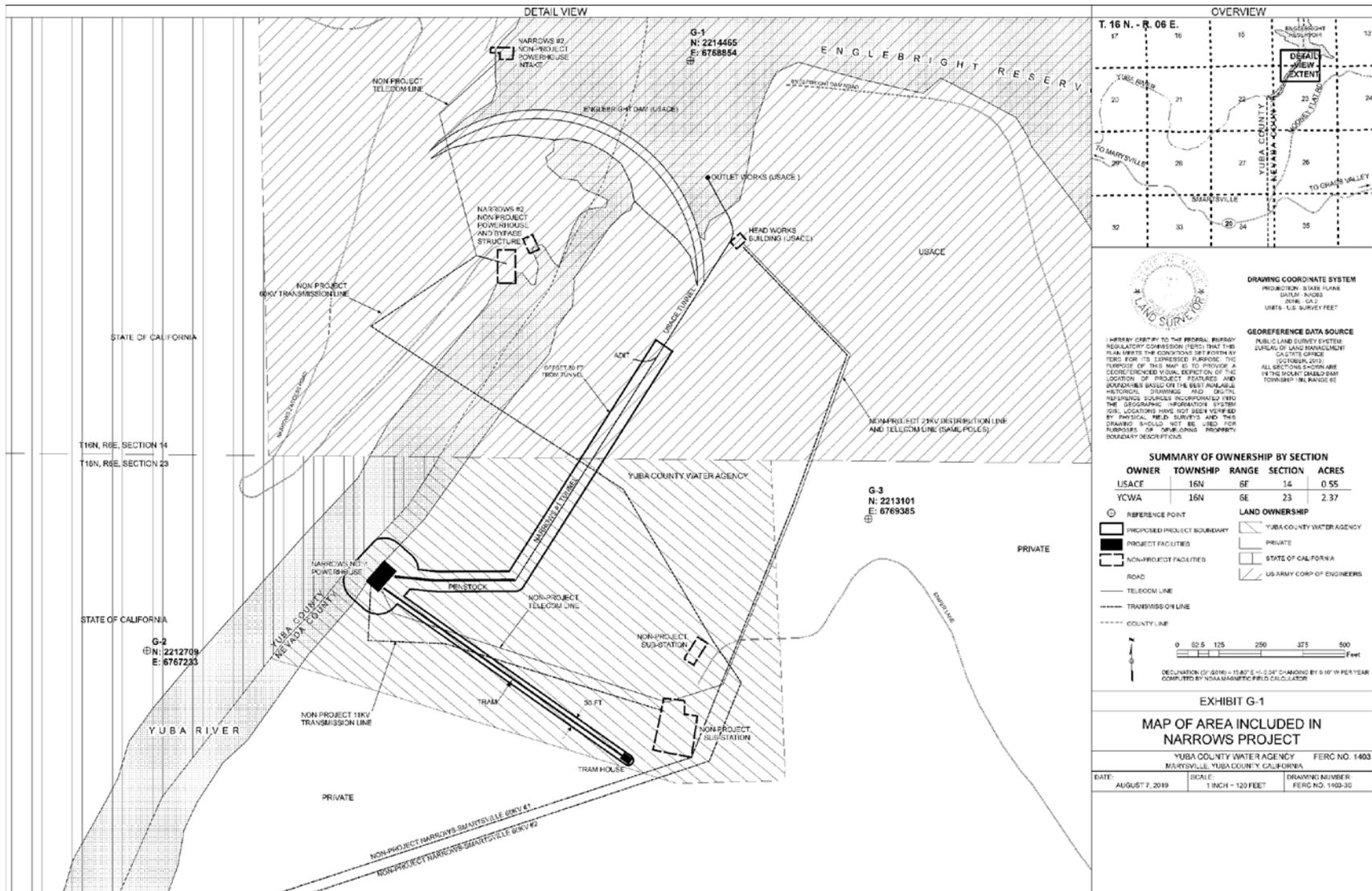
At this time, YCWA does not propose any changes to the existing FERC Project Boundary and existing Exhibit G Project map. YCWA reserves its right to propose changes as the relicensing proceeds.

4.0 Literature Cited

None.

Attachment G-1

Map of Area Included in Narrows Project



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