

**Table B-2 Geology and Soils.**

Resource Area	Author	Date	Title	Publisher	Source/Agency Recommendation	Reference is:	Summary Description	Location
Geology and Soils	Adler, Lori Lynn.	1980	Adjustment of the Yuba River to the Influx of Hydraulic Mining Debris, 1849-1979	University of California, Los Angeles. Masters Thesis	--	Relevant. Cited in PAD text.	Investigation of the influence upon a fluvial system from influx of sediment from hydraulic mining.	HDR\DTA Bellingham: O:\YCWA\PAD\Geology Soils YCWA\YCWA G&S References
Geology and Soils	Alpers, C. N. Hunerlach M. P. Marvin-DiPasquale M. Snyder N. P. and Krabbenhoft D. P.	2005	Mercury and methylmercury in the upper Yuba River watershed: Fluvial transport and reservoir sedimentation.	Third Biennial CALFED Bay-Delta Program Science Conference Abstracts; Sacramento, CA. 2004p. 4. (talk).	FWN PAD Questionnaire Response July 27, 2009	Relevant as general information in water quality section; did not use in Geology and Soils.	Investigation monitoring mercury and methylmercury concentrations in water, suspended sediment, and reservoir-bed sediment during 2001-2003 due to the potential exposure to anadromous fish if introduced to upper Yuba.	<a href="http://www.science.calwater.ca.gov/events/conferences/">http://www.science.calwater.ca.gov/events/conferences/</a>
Geology and Soils	Alpers, C. N. Hunerlach M. P. May J. T. and Hothem R. L.	2005	Mercury contamination from historical gold mining in California.	U.S. Geological Survey Fact Sheet 2005-3014, 6 p. ; 2005.	FWN PAD Questionnaire Response July 27, 2009	Relevant as general information in water quality section; did not use in Geology and Soils.	Fact sheet providing background information on the use of mercury in historical gold mining and processing operations in California, and description of recent USGS projects that address potential risks.	<a href="http://pubs.usgs.gov/fs/2005/3014/fs2005_3014_v1.1.pdf">http://pubs.usgs.gov/fs/2005/3014/fs2005_3014_v1.1.pdf</a>
Geology and Soils	Alpers, C.N., Hunerlach, M.P., Marvin-DiPasquale, M.C., Antweiler, R.C., Lasorsa, B.K., De Wild, J.F., and Snyder, N.P.	2006	Geochemical data for mercury, methylmercury, and other constituents in sediments from Englebright Lake.	U.S. Geological Survey Data - Series Report 2005-151	--	--		<a href="http://pubs.water.usgs.gov/ds151/">http://pubs.water.usgs.gov/ds151/</a>
Geology and Soils	Aspen Environmental Group. 2000.	2000	Pacific Gas and Electric Company's application for authorization to divest its hydroelectric generating facilities and related assets. Application 99-09053. Draft Environmental Impact Report. November 2000.	PG&E; Prepared for California Public Utilities Commission.	--	Relevant; cited in PAD text.	Facilities - contains information regarding minerals, seismic stability, geology, soils for Drum Spaulding facilities (in addition to other PG&E facilities).	HDR\DTA Bellingham: hard copy dated 5/15/2007 (url on bottom of document no longer works).
Geology and Soils	Ayres Associates.	1997	Final Report American and Sacramento River, California Project: Geomorphic, Sediment Engineering, and Channel Stability Analyses.	Prepared for the U.S. Army Corps of Engineers, Sacramento District, Contract No. DACW05-92-C-0077; 1997.	FWN PAD Questionnaire Response July 27, 2009	Not available at time of PAD preparation.	--	Searched Army Corpy of Engineers data base for document - not located
Geology and Soils	Bateman, P. and C Wahrhaftig.	1966	Geology of the Sierra Nevada	Geology of Northern California. California Division of Mines and Geology Bulletin 190 p. 107-172. 1966. Bailey, E. Ed.	FWN PAD Questionnaire Response July 27, 2009	--	Though written before the advent of the concept of plate tectonics, this article remains the best general descriptive summary of the geology of the Sierra Nevada. Descriptive, though may be outdated with respect to timing of geologic events.	Checked out copy from local library; reviewed for general information
Geology and Soils	Beak Consultants, Inc.	1989	Yuba River Fisheries Investigations, 1986-88, Summary Report Of Technical Studies On The Lower Yuba River, California.	--	--			

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Geology and Soils	Beard, J.S., and H.W. Day	1987	The Smartville intrusive complex, Sierra Nevada, California: The core of a rifted volcanic arc	GSA Bulletin, V.99, p. 779-791	--	Relevant; cited in text	Geologic history of the Smartville complex; interpretation of the complex as a rifted volcanic-sub-volcanic edifice that formed in a Late Jurassic arc.	HDR\DTA Bellingham: O:\YCWA\PAD\Geology Soils YCWA\YCWA G&S References
Geology and Soils	Bennett, J.H.	1983	Geodetic surveys on the Foothills Fault System near Smartville, Yuba County, California	California Geology, v.36, p. 51-53	--	Relevant; cited in text (as cited in James 1988)	Details on the Foothill Fault system	HDR:DTA Bellingham: Hard copy of James 1988 document
Geology and Soils	Bobbitt, John Bailey.	1982	Petrology, structure, and contact relations of part of the Yuba Rivers pluton, northwestern Sierra Nevada foothills, California. 1982	MSc Thesis, U.C. Davis; 1982 Shields Library Microcopy CollectionLD781.D5j 1982B622.	FWN PAD Questionnaire Response July 27, 2009	Potentially relevant as background information specific to petrology but not used nor cited in text. Refer to Day and Bickford 2004, Day et al. 1985.	Detail regarding the Yuba Rivers Pluton in northwestern Sierra Nevada foothills. The margin of the pluton is interpreted as an intrusive contact that was deformed in the Wolf Creek fault zone during intrusion and postemplacement cooling.	Hard copy, U.C. Davis, and through microfilm at Shields Library
Geology and Soils	Bovee, K.	1997	Data collection procedures for the Physical Habitat Simulation System	U.S. Geological Survey, Biological Resources Division, Fort Collins, Colorado	--	Relevant; cited in Channel Morphology Study Plan that is included as an attachment to the PAD	Methods for establishing study sites for instream flow studies	<a href="http://www.fort.usgs.gov/Products/Publications/20002/20002.pdf">http://www.fort.usgs.gov/Products/Publications/20002/20002.pdf</a>
Geology and Soils	Brown, C.B.	1943	Discussion of sedimentation in reservoirs	Proceedings of the American Society of Civil Engineers 69: 1493-1500	--	Relevant; cited in PAD text as an empirical relation for trap efficiency of reservoirs.	Empirical relationship developed for trap efficiency of reservoirs.	Table that used empirical relation was copied from Exhibit E. Geological Resources Chapter E11. South Feather Power Project. FERC Project No. 2088. March 2007
Geology and Soils	Brune, G	1953	Trap efficiency of reservoirs.	Transactions of the American Geophysical Union 34: 407-418	--	Relevant; cited in PAD text as an empirical relation for trap efficiency of reservoirs.	Empirical relationship developed for trap efficiency of reservoirs.	Table that used empirical relation was copied from Exhibit E. Geological Resources Chapter E11. South Feather Power Project. FERC Project No. 2088. March 2007
Geology and Soils	Brunner, Gary W.	2008	HEC-RAS, River Analysis System User's Manual	US Army Corps of Engineers Hydrologic Engineering Center, Davis, CA	--	Relevant; cited in Channel Morphology Study Plan that is included as an attachment to the PAD	Users manual for HEC-RAS hydraulic model.	<a href="http://www.pdfhost.com/ebook/hecras/">http://www.pdfhost.com/ebook/hecras/</a>
Geology and Soils	Buer, Koll.	1979	Stratigraphy, structure and petrology of a portion of the Smartville ophiolite, Yuba County, California.	MSc Thesis, U.C. Davis	FWN PAD Questionnaire Response July 27, 2009	Potentially relevant as background information specific to petrology but not used nor cited in text. Refer to Day et al. 1985, Beard and Day 1987	Details of the Smartville intrusive complex	Hard copy, U.C. Davis
Geology and Soils	Buffington, J.M. and D.R. Montgomery	1999	A procedure for classifying textural facies in gravel-bed rivers	Water Resources Research. Vol 35, No. 6, pp 1903-1914	--	Relevant; cited in Channel Morphology Study Plan that is included as an attachment to the PAD	Method to differentiate, classify and quantify substrate in a stream channel study site/reach	HDR\DTA Bellingham: Hard Copy

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Geology and Soils	California Debris Commission (CDC)	1906	Map of the Yuba River, California from the Narrows to its mouth in the Feather River, scale 1:9,600	Made under direction of Major Wm. W. Harts, U.S. Army Corps of Engineers, by G.G. McDaniel, Jr.	--			
Geology and Soils	California DWR	2004	Draft Report SP-G2: Effects of Project Operations on Geomorphic Processes Downstream of Oroville Dam Task 7 - Hydraulic and Sediment Transport Modeling with Fluvial-2.	Oroville Facilities Relicensing FERC Project No. 2100. State of California Department of Water Resources. March 2004.	--	Potentially relevant: General information as to methods and vicinity descriptions.	Sediment - bedload and sediment in the Feather River	<a href="http://orovillerelicensing.water.ca.gov/pdf_docs/03-24-04_env_att6-sp-g2_task7.pdf">http://orovillerelicensing.water.ca.gov/pdf_docs/03-24-04_env_att6-sp-g2_task7.pdf</a>
Geology and Soils	California DWR	2004	Draft Report SP-G1: Effects of Project Operations on Geomorphic Processes Downstream of Oroville Dam.	Oroville Facilities Relicensing FERC Project No. 2100. State of California Department of Water Resources. April 2004.	--	Relevant; cited in PAD text for brief description/comparison as to sediment yields in vicinity	Sediment - bedload and sediment in the Feather River	<a href="http://www.water.ca.gov/orovillerelicensing/wg-reports_EWG_040528b.cfm">http://www.water.ca.gov/orovillerelicensing/wg-reports_EWG_040528b.cfm</a>
Geology and Soils	Childs, J.R., N.P. Snyder and M.A. Hampton	2003	Bathymetric and geophysical surveys of Englebright Lake, Yuba-Nevada Counties, California	USGS Open-File Report 03-383. 20 pp.	FWN PAD Questionnaire Response July 27, 2009	Relevant background information, cited by and part of numerous other papers (part of larger study); not cited in text. See Curtis et al. 2005a and 2005b	Results of the UYRSP bathymetric, geological, and geophysical surveys, including a new bathymetric map of the reservoir and estimates of the total accumulated sediment volume.	<a href="http://geopubs.wr.usgs.gov/open-file/of03-383/">http://geopubs.wr.usgs.gov/open-file/of03-383/</a>
Geology and Soils	Christensen Associates, Inc.	2007	New Bullards Bar Dam Rockslide Downstream of Right Abutment Report on Investigation.	Yuba County Water Agency, FERC Project No. 2246.	--	Relevant; cited in PAD text.	Reports the results of an investigation of the rockslide that occurred on the slope downstream from the right abutment of the New Bullards Bar Dm in early 2006	YCWA and DTA Bellingham: Data CD
Geology and Soils	Churchill, M.A.	1948	Discussion of Analyses and use of reservoir sedimentation data, by L. C. Gottschalk.	In Proceedings of the federal interagency sedimentation conference, Denver; Colorado. Washington D. C. US Geological Survey, 139-40.	--	Relevant; cited in PAD text.	Empirical relationship developed for trap efficiency of reservoirs.	Table that used emprical relation was copied from Exhibit E. Geological Resources Chapter E11. South Feather Power Project. FERC Project No. 2088. March 2007
Geology and Soils	Curtis, J.A. and L.E. Flint	2003	Development of a hillslope erosion potential index for sediment transport in the Yuba River Basin.	GSA Abstracts with Programs, V.35, No. 6.	--	Relevant; cited in PAD text (see also Flint et al. 2003)	Development of a conceptual model of sediment processes in the upper Yuba River watershed using a distributed parameter watershed model (Hydrological Simulations Program-Fortran [HSPF]).	--
Geology and Soils	Curtis, J. A. Flint L. E. Alpers C. N. Wright S. A. and Snyder N. P.	2004	Sediment Transport in the Upper Yuba River Watershed, California, 2001-03.	U.S. Geological Survey Scientific Investigations Report.; 2006; U.S. Geological Survey Scientific Investigations Report 2005-5246, 74 pp.	FWN PAD Questionnaire Response July 27, 2009	Relevant; cited in PAD text.	Abstract of talk; development of of bedload rating curves to estimate total annual sediment discharge for the Middle and South Yuba Rivers.	HDR DTA Bellingham: Hard copy of abstract
Geology and Soils	Curtis, J.A., L.E. Flint, C.N. Alpers, and S.M. Yarnell.	2005a	Conceptual model of sediment processes in the upper Yuba River watershed, Sierra Nevada, California.	Geomorphology. 68 (2005): 149-166.	FWN PAD Questionnaire Response July 27, 2009	Relevant; cited in PAD text.	Development of a conceptual model of sediment processes in the upper Yuba River watershed; and hypothesizes how components of the conceptual model may be spatially distributed using a geographical information system (GIS).	HDR DTA Bellingham: O:\YCWA\PAD\Geology Soils YCWA\YCWA G&S References; DTA Sacramento

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Geology and Soils	Curtis, J.A., L.E. Flint, C.N. Alpers, S.A. Wright, and N.P. Snyder	2005b	Use of Sediment Rating Curves and Optical Backscatter Data to Transport in the Upper Yuba River Watershed, California, 2001-03.	U.S. Geological Survey Scientific Investigations Report 2005-5246. 84 pp.	--	Relevant; cited in PAD text.	Sediment transport in the upper Yuba River watershed was evaluated from October 2001 through September 2003. This report presents results of a three-year study by the U.S. Geological Survey, in cooperation with the California Ecosystem Restoration Program of the California Bay-Delta Authority and the California Resources Agency.	HDR\DTA Bellingham: hard copy
Geology and Soils	Curtis, J.A., L.E. Flint, C.N. Alpers, S.A. Wright	2006	Evaluating sediment sources, erosion, and transport processes in the Upper Yuba River Watershed.	Joint 8th Federal Interagency Sedimentation Conference Extended Abstracts. Reno, NV Apr 2-6, 2006.	--	Relevant; cited in PAD text.	Conceptual model of sediment sources, erosion, and transport processes was developed and sediment-transport studies were conducted in the upper Yuba River watershed. Field observations of sediment production due to mass wasting, channel storage volumes, and the sediment sources, erosion, and transport processes were used to develop the conceptual model.	<a href="http://pubs.usgs.gov/misc/FISC_1947-2006/pdf/1st-7thFISCs-CD/8thFISC/Session%206A-1_Curtis.pdf">http://pubs.usgs.gov/misc/FISC_1947-2006/pdf/1st-7thFISCs-CD/8thFISC/Session%206A-1_Curtis.pdf</a>
Geology and Soils	Day, H.E., E.M. Moores, and A.C. Tuminas	1985	Structure and tectonics of the northern Sierra Nevada.	GSA Bulletin, V.96, p. 436-450.	--	Relevant; cited in PAD text.	Overview of detailed descriptions of parts of the Smartville complex and Central belt (e.g., Buer 1979, Bobbitt 1982, Day 1977). Early east-directed overthrusts followed by west-directed back folding and faulting implies shortening and thickening of the crust during the Nevadan Orogeny and is consistent with the idea that the northern Sierra Nevada is the result of a crustal collisional process.	HDR:DTA Bellingham: O:\YCWA\PAD\Geology Soils YCWA\YCWA G&S References
Geology and Soils	Day, H.W., and M.E. Bickford	2004	Tectonic setting of the Jurassic Smartville and Slate Creek complexes, northern Sierra Nevada, California	GSA Bulletin, v. 116; no. 11/12; p. 1515-1528	--	Relevant; cited in PAD text.	Report of new and revised dates for Slate Creek complexes, implying that Central and Western belts have been part of the same terrane since Middle Jurassic and the fault separating them has accommodated only minor displacements since ca. 160 Ma	HDR:DTA Bellingham: O:\YCWA\PAD\Geology Soils YCWA\YCWA G&S References
Geology and Soils	Day, Sumner Daniel.	1977	The petrology of a mafic dike complex near Smartville, Yuba County, California.	Masters Thesis, U.C. Davis	FWN PAD Questionnaire Response July 27, 2009	Potentially relevant as background information specific to petrology but not used nor cited in text. Refer to Day et al. 1985, Beard and Day 1987	Background and detail about the mafic dike complex of the Smartville complex, which is a Jurassic volcanic and plutonic arc formed during incipient rifting of an active volcanic arc. Intersecting dikes within the pluton of the Smartville complex are virtually 100% sheeted dikes.	U.C. Davis, hard copy

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Resource Area	Author	Date	Title	Publisher	Source/Agency Recommendation	Reference is:	Summary Description	Location
Geology and Soils	Department of Conservation, Office of Mine Reclamation, Abandoned Lands Mines Unit,	2003	Abandoned Mine Lands Assessment of the North Yuba Watershed: Prepared for the California Bay-Delta Authority. May 2003. Sacramento, California.	Prepared for the California Bay-Delta Authority	--	Relevant; cited in PAD text.	Data obtained from the inventory of 128 abandoned mine sites in the North Yuba Watershed. Using a Preliminary Appraisal and Ranking (PAR) model, as well as results of soil sample analyses, it evaluates the potential impacts of each mine site to human health and the environment. The report also presents several prioritizations of these sites for possible remediation activities.	<a href="http://www.consrv.ca.gov/OMR/abandoned%5Fmine%5Flands/North%20Yuba.pdf">http://www.consrv.ca.gov/OMR/abandoned%5Fmine%5Flands/North%20Yuba.pdf</a>
Geology and Soils	Dietrich, W.E., J.W. Kirchner, H.Ikeda, and F. Iseya	1989	Sediment supply and development of the coarse surface layer in gravel-bedded rivers	Nature, Vol 340, No. 6230, pp. 215-217, 20 July 1989	--	Relevant; cited in Channel Morphology Study Plan that is included as an attachment to the PAD	Discussion and methods to understand and quantify channel armoring.	HDR DTA Bellingham: Hard copy
Geology and Soils	Diggles, M.F., J.R. Rytuba, B.C.Moring, C.T. Wrucke, D.P. Cox, S.Ludington, R.P. Ashley, W.J. Pickthorn, C.T. Hillman, R.J. Miller	1996	Geology and Minerals Issues. Sierran Nevada Ecosystem Project: Final report to Congress Vol. II (Chapter 18). Assessments and scientific basis for management options.	USGS Digital Data Series DDs-43 1997. Davis: University of California, Centers for Water and Wildland Resources.	--	Relevant; cited in PAD text.	Minerals in the Sierra Nevada range	HDR DTA Bellingham: DVD (Volume II, Chapter 18)
Geology and Soils	DWR and USACE	2003	Daguerre Point Dam Fish Passage Improvement Project 2002 Water Resources Studies (Stakeholder Review Draft).	Entrix, Inc.	--			
Geology and Soils	EA Engineering Science and Technology	2000	Slate Creek monitoring data interim report.	Prepared for Oroville-Wyandotte Irrigation District, Oroville, CA.	--	Relevant; cited in PAD text.	Summary of interim monitoring data on Slate Creek.	HDR:DTA Sacramento: from Section E11 Geological Resources in License Application for South Feather Power Project, FERC 2088.
Geology and Soils	EBASCO Services, Inc., and Envirospere Company	1986	Cleanup and abatement plan for sediment sluiced from Our House Reservoir.	Interim technical report prepared for Yuba County Water Agency, October 30, 1986.	--	Relevant; cited in PAD text	Interim report for Our House Dam sediment removal	HDR:DTA Bellingham: CD with files
Geology and Soils	EDAW and Flood Control Study Team	2004	Three Rivers Levee Improvement Authority. 2004. Final Environmental Impact Report for the Feather-Bear Rivers Levee Setback Project, an Element of the Yuba-Feather Supplemental Flood Control Project.	State Clearinghouse No. 2004072113. Prepared by EDAW and Flood Control Study Team. November 2004.	SYRCL PAD Questionnaire Response July 17, 2009	Relevant as background information but not cited in document. Refer to EDAW 2006.	Feather-Bear Rivers Levee Setback involves setting back the right bank levee of the lower Bear River from the confluence with the Feather River, which is implemented to achieve a 200-yr level of flood protection, and results in more than 300 acres of riparian wetlands restoration along the lower Bear River.	--

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Geology and Soils	EDAW, Jones and Stokes and Flood Control Study Team.	2003	Environmental Impact Report for the Yuba-Feather Supplemental Flood Control Project.	Prepared for Yuba County Water Agency; 2003; State Clearinghouse # 2001072062.	FWN PAD Questionnaire Response July 27, 2009	Relevant as background information but not cited in document. Refer to EDAW 2006.	The Yuba-Feather Workgroup was formed as a stakeholder and agency collaborative effort to oversee the use of Proposition 13 (Machado Act) funding for flood management projects by the Yuba County Water Agency. (The Act authorizes \$70 million in non-dam flood management projects by the Agency.) The Workgroup, YCWA, DWR, and Three Rivers Authority have agreed to use a portion of these funds (including \$20 million in mitigation funds in addition to the \$70 million above) to set back a portion of the Bear River levee on the north side of the river from the confluence with the Feather River to SR 70, a total of 322 acres. In addition to improved flood protection, the levee setback will provide opportunities for significant enhancement of the fishery on the lower Bear.	--
Geology and Soils	EDAW Flood Control Study Team	2006	Draft Environmental Impact Report for the Feather River Levee Repair Project, an element of the Yuba-Feather Supplemental Flood Control Project.	Prepared by EDAW Flood Control Study Team. August. Chapter 5-3 - Water Resources. State Clearinghouse No. 2006062071.	--	Relevant; cited in PAD text.	Feather-Bear Rivers Levee Setback involves setting back the right bank levee of the lower Bear River from the confluence with the Feather River, which is implemented to achieve a 200-yr level of flood protection, and results in more than 300 acres of riparian wetlands restoration along the lower Bear River.	--
Geology and Soils	Eddy, Carol Ann.	1985	Petrology and geochemistry of the Yuba Rivers pluton, northwestern Sierra Nevada foothills, California.	MSc Thesis, U.C. Davis	FWN PAD Questionnaire Response July 27, 2009	Potentially relevant as background information specific to petrology but not cited in text. See Beard and Day 1987 and Day and Bickford 2004 for citations for other Eddy articles and Yuba Rivers pluton details.	Details about the Yuba Rivers Pluton.	Hard copy, U.C. Davis
Geology and Soils	Escobar, M.I. and Pasternack, G.B.	2010	Differences in River Ecological Functions Due to Rapid Channel Alteration Processes in Two California Rivers Using the Functional Flows Model. Part 2: Model Applications.	River Research and Applications, doi: 10.1002/rra.1335.	--	--		
Geology and Soils	Faunt, C.C.	2009	Groundwater Availability of the Central Valley Aquifer, California.	U.S. Geological Survey Professional Paper 1766, 225 p.	--	--		
Geology and Soils	Federal Energy Regulatory Commission (FERC). 2009.	2009	Final Environmental Impact Statement (FEIS) for Relicensing of the South Feather Power (Project No. 2088-068).	FERC	--	Relevant; cited in PAD text.	Environmental details of South Feather Power Project.	< <a href="http://www.ferc.gov/industries/hydropower/enviro/eis/2009/06-04-09.asp">http://www.ferc.gov/industries/hydropower/enviro/eis/2009/06-04-09.asp</a> > Accessed June 2009.
Geology and Soils	Flint, L. A. Guay J. R. Flint A. L. Curtis J. A. and Alpers C. N.	2004	Spatially distributed model of flow and sediment transport in the upper Yuba River watershed.	Third Biennial USGS – UYRSP Progress report page 10 of 11 Nov. 15, 2005; Sacramento, CA. CALFED Bay-Delta Program Science Conference Abstracts; 2004: p. 78. (talk).	FWN PAD Questionnaire Response July 27, 2009.	Relevant; cited in PAD text.	Distributed-parameter model that was developed for the watershed as a tool for assessing the spatial distribution of sediment transport as it relates to fish habitat and influences of land-use practices, dam management, and climate.	<a href="http://www.science.calwater.ca.gov/events/conferences/">http://www.science.calwater.ca.gov/events/conferences/</a>

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Geology and Soils	Flint, L. E. Guay J. R. Flint A. L. Curtis J. A. and C. N. Alpers.	2005	Influence of climate on flow and sediment transport in the upper Yuba River basin.	American River Science Conference; Sacramento, California 2005 (talk).	FWN PAD Questionnaire Response July 27, 2009	Could not locate; likely covered in other papers e.g., Flint et al 2004. Curtis et al.	--	not easily available (not published)
Geology and Soils	Flint, L. E. J. Curtis B. Wilkins S. Yarnell and E. Larsen.	2002	Watershed Characterization for Sediment Transport Studies in the Upper Yuba River Watershed.	USGS Poster; 2002.	FWN PAD Questionnaire Response July 27, 2009	Could not locate; likely covered in other papers e.g., Flint et al 2004. Curtis et al.	--	not easily available (not published)
Geology and Soils	Flint, L.E., J.A. Curtis, and A.L. Flint	2003	Development of a hillslope erosion potential index for sediment transport in the Yuba River Basin.	GSA 2003 Seattle Annual Meeting Paper No. 190-8.	--	Relevant to supplement Flint et al. 2004 but not cited in text; duplicate of Curtis and Flint 2003.	Development of a conceptual model of sediment processes in the upper Yuba River watershed using a distributed parameter watershed model (Hydrological Simulations Program-Fortran [HSPF]).	<a href="http://gsa.confex.com/gsa/2003AM/finalprogram/abstract_67330.htm">http://gsa.confex.com/gsa/2003AM/finalprogram/abstract_67330.htm</a>
Geology and Soils	Fraser, W.A., and Howard, J.K.	2002	Guidelines for use of the Consequence-Hazard Matrix and selection of ground motion parameters.	Division of Safety of Dams, Department of Water Resources, State of California.	--	Relevant; cited in PAD text.	Discusses the development of ground motion parameters for proposed and existing dams undergoing review.	<a href="http://www.water.ca.gov/damsafety/docs/CHM.pdf">http://www.water.ca.gov/damsafety/docs/CHM.pdf</a>
Geology and Soils	Fulton, A.A.	2008	Gravel for Salmon in Bedrock Channels: Elucidating Mitigation Efficacy Through Site Characterization, 2D-Modeling, and Comparison Along the Yuba River. CA	M.S. Thesis, University of California, Davis, CA, 110 p.	--	--		
Geology and Soils	Gard, M.	2007	Flow-habitat relationships for spring and fall-run Chinook salmon and steelhead/rainbow trout spawning in the Yuba River.	Draft report prepared by the Energy Planning and Instream Flow Branch of the USFWS, Sacramento, CA. April 19, 2007	--	--		
Geology and Soils	Gard, M.	2008	Flow-habitat relationships for juvenile spring/fall-run chinook salmon and steelhead/rainbow trout rearing in the Yuba River.	Draft report prepared by the Energy Planning and Instream Flow Branch of the USFWS, Sacramento, CA August 12, 2008	--	--		
Geology and Soils	Geomatrix	2004	Review of potential seismic sources and potential ground motions New Bullards Bar Dam.	Geomatrix. Prepared for Yuba County Water Agency, Project #9467, CA No. 1034.	--	Relevant; cited in PAD text.	Review of potential seismic sources for New Bullards Bra Dam; re-evaluation of existing information on potential seismic sources, establish controlling fault(s) and maximum credible earthquake and estimate range of ground motion.	HDR DTA Bellingham: O:\YCWA\PAD\Geology Soils YCWA\YCWA G&S References
Geology and Soils	Gilbert, G.K.	1917	Hydraulic-Mining Debris in the Sierra Nevada.	U.S. Geological Survey Professional Paper 105, 154 p.	--	--		
Geology and Soils	Grant, G.E., J.C. Schmidt, and S.L. Lewis.	2003	A geological framework for interpreting downstream effects of dams on rivers	A Unique River. Water Science and Application 7. American Geophysical Union 10/1029/007WS13	--	Relevant; cited in Channel Morphology Study Plan that is included as an attachment to the PAD	Analytical framework to predict geomorphic response to dams depending on the ratio of sediment supply below to that above dams (S*) and the fractional change in frequency of sediment-transporting flows (T*)	HDR DTA Bellingham: Hard copy

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Resource Area	Author	Date	Title	Publisher	Source/Agency Recommendation	Reference is:	Summary Description	Location
Geology and Soils	HDR	2009	Aerial Video - Yuba County Water Agency Yuba River Development Project (FERC Project NO. 2246)	Yuba County Water Agency	--	Relevant; cited in PAD and Channel Morphology Study Plan	Aerial video of Project streams and shorelines; Taped 10.06.09; Edited 11.10.09	HDR\DTA Bellingham: DVD
Geology and Soils	Hacker, Bradley R.	1993	Evolution of the northern Sierra Nevada metamorphic belt: Petrological, structural, and Ar/Ar constraints.	GSA Bulletin, v. 105, p. 637-656, May 1993.	--	Potentially relevant as background information but not used nor cited in text. Refer to Day and Bickford 2004	Discusses the importance of the record of the growth of continental crust from essentially oceanic materials. Provides ages of volcanic argillites in the Fiddle Creek complex of the Western belt	<a href="http://www.geol.ucsb.edu/faculty/hacker/viz/Hacker93_Evolution_Sierra_Nevada.pdf">http://www.geol.ucsb.edu/faculty/hacker/viz/Hacker93_Evolution_Sierra_Nevada.pdf</a>
Geology and Soils	Hacker, Bradley Russell.	1984	Stratigraphy and structure of the Yuba Rivers area, central belt, northern Sierra Nevada, California.	Shields Library Microcopy Collection LD781.D5j 1984 H315.	FWN PAD Questionnaire Response July 27, 2009.	Potentially relevant as background information but not used nor cited in text. Refer to Day and Bickford 2004 and Day et al. 1985.	Masters thesis discusses how the Cape Horn and Oregon Creek formations are displaced by three regionally extensive, steeply dipping Jurassic faults. Three petrographically distinct groups of plutons intrude the metamorphic rocks	Hard copy, U.C. Davis. Published:
Geology and Soils	Haskins, D. M., C. S. Correll, R. A. Foster, J. M. Chatoian, J. M. Fincher, S. Strenger, J.E. Keys, J. R. Maxwell, and T. King	1998	A geomorphic classification system.	U.S. Department of Agriculture Forest Service, Geomorphology Working Group, Washington.	--	Relevant; cited in PAD text as geomorphology mapping standards followed by USFS Adaptive Management Team.	A geomorphic classification system.	Could not locate
Geology and Soils	Henry, C.D., and M.E. Perkins	2001	Sierra Nevada-Basin and Range transition near Reno, Nevada: Two-stage development at 12 and 3 Ma	Geology, v. 29, p. 719-722	--	Relevant; cited in PAD as background geologic information	Discussion of the Sierra Nevada Basin and Range transition.	<a href="http://www.nbmj.unr.edu/staff/henry/HenryPerkinsSNV_B&amp;RGeology01.pdf">http://www.nbmj.unr.edu/staff/henry/HenryPerkinsSNV_B&amp;RGeology01.pdf</a>
Geology and Soils	Hoover, M.B, H.E. Rensch, E.G. Rensch, and W.N. Abeloe.	1990	Historic spots in California.	Stanford University Press, Stanford, California.	--	Relevant; cited in PAD text as part of EDAW 2006.	--	Cited by EDAW 2006
Geology and Soils	Hunerlach, M. P. Alpers C. N. and Marvin-DiPasquale M.	2005	Mercury and methylmercury distribution in sediments affected by historical gold mining, Sierra Nevada, California,	15th Annual Goldschmidt Meeting (The Geochemical Society), Moscow, Idaho. abstract published in Geochimica et Cosmochimica Acta, v. 69, No. 10, Supplement 1, p. A707; 2005 (invited talk, not given because of travel problems)	FWN PAD Questionnaire Response July 27, 2009	Relevant as general information in water quality section; did not use in Geology and Soils.	--	not located; refer to other Hunerlach papers
Geology and Soils	Hunerlach, M. P. Alpers C. N. Marvin-DiPasquale M. Taylor H. E. and De Wild J. F.	2004	Geochemistry of Mercury and other trace elements in fluvial tailings upstream of Daguerre Point Dam, Yuba River, California, August 2001.	Scientific Investigations Report 2004-5165, 66 p.; 2004.	FWN PAD Questionnaire Response July 27, 2009	Relevant as general information in water quality section; did not use in Geology and Soils.	Study designed to characterize the particle-size distribution and the concentrations of total mercury (HgT), methylmercury (MeHg), and other constituents in sediments trapped behind Daguerre Point Dam	<a href="http://pubs.usgs.gov/sir/2004/5165/">http://pubs.usgs.gov/sir/2004/5165/</a>
Geology and Soils	James Allan J. .	1989	Sustained Storage and Transport of Hydraulic Gold Mining Sediment in the Bear River, California	Annals of the Association of American Geographers; Volume 79( Issue 4): Page 570. (Abstract).	FWN PAD Questionnaire Response July 27, 2009	Potentially relevant background information, but outside project area and redundant to other James citations; not cited in text.	Large deposits of hydraulic gold mining sediment remain in main channels of the Bear River. Sustained storage and transport of hydraulic mining sediment in the Bear Basin are documented and a revised model of sediment transport is proposed	<a href="http://www.informaworld.com/smpp/content~content=a788950736&amp;db=all">http://www.informaworld.com/smpp/content~content=a788950736&amp;db=all</a>

**Table B-2 Geology and Soils.**

Resource Area	Author	Date	Title	Publisher	Source/Agency Recommendation	Reference is:	Summary Description	Location
Geology and Soils	James, L. A.	2004	Tailings fans and valley-spur cutoffs created by hydraulic mining.	Earth Surface Processes and Landforms 29 (7) : 869-882.	--	Potentially relevant background information, but outside project area; not cited in text.	Tailing fans, valley-spur cutoffs, and the sediment they trap are described from contemporary accounts and recent field conditions in the Bear River watershed. These anthropogenic changes represent a major shift in the watershed from supply-limited to transport-limited sediment budgets and a change in geomorphic processes away from long-term drainage evolution dominated by <del>erosion</del> .	HDR DTA Bellingham: Hard copy
Geology and Soils	James, L. A.	1995	Diversion of the Upper Bear River: Glacial Difffluence and Quaternary Erosion, Sierra Nevada, California.	Geomorphology. 14: 131-148.	--	Potentially relevant background information; not cited in text.	Morphologic evidence supports a hypothesis of dominantly sub-glacial erosion at an outlet glacier through the Yuba gorge where steep valley gradients, high shear stresses, and large meltwater discharges led to rapid erosion and formation of a deep V-shaped valley.	HDR DTA Bellingham: Hard copy
Geology and Soils	James, L. A.; Harbor, J.; Fabel, D.; Dahms, D.; and Elmore, D.	2002	Late Pleistocene Glaciations in the Northwestern Sierra Nevada, California.	Quaternary Research 57: 409-419.	--	Relevant. Cited in text.	Nine cosmogenic radionuclide surface exposure (CRSE) ages from striated bedrock along a steep valley transect average 14,100±1500 yr and suggest rapid late-glacial ice retreat from lower Fordyce Canyon with no subsequent extensive glaciations. These ages are generally consistent with glacial and pluvial records in east-central California and Nevada.	HDR DTA Bellingham: Hard copy
Geology and Soils	James, L. Allan.	1988	Historical transport and storage of hydraulic mining sediment in the Bear River, California.	PHD thesis; University of Wisconsin - Madison. 284 pp.	--	Relevant. Cited in text.	PhD dissertation discusses the timing of hydraulic mining sediment production, the volume and character of deposits, channel responses during and after the influx of sediment, and sustained reworking of the sediment more than 100 years after its <del>introduction</del> .	HDR DTA Bellingham: Hard copy.
Geology and Soils	James, L. Allan	2005	Sediment from hydraulic mining detained by Englebright and small dams in the Yuba Basin.	Geomorphology 71: 02-226; Elsevier.	FWN PAD Questionnaire Response July 27, 2009	Relevant as background information and somewhat redundant to other James' papers; not cited in text.	Examines history of the Yuba basin and resulting conditions pertinent to the feasibility of altering Englebright Dam.	HDR DTA Bellingham: O:\YCWA\PAD\Geology Soils YCWA\YCWA G&S References
Geology and Soils	James, L.A.	1999	Time and the persistence of alluvium: River engineering, fluvial geomorphology, and mining sediment in California.	Geomorphology 31: 265-290.	--	Relevant as background information; not cited in text.	Channel morphological changes in the Bear and American basins brought about by two episodes of sedimentation from hydraulic gold <del>mining</del> .	HDR DTA Bellingham: Hard copy
Geology and Soils	James, L.A.	2003	Glacial erosion and geomorphology in the northwest Sierra Nevada, California.	Geomorphology 55 (1-4): 283-303.	--	Relevant. Cited in text.	Description of glacially eroded features in the northwest Sierra and presents inferred linkages between erosional forms and Pleistocene <del>glacial processes</del> .	HDR DTA Bellingham: Hard copy
Geology and Soils	James, L.A.	1991	Quartz concentration as an index of sediment mixing: hydraulic mine-tailings in the Sierra Nevada, California.	Geomorphology 4: 125-144.	--	Relevant. Cited in text.	Conceptual model that summarizes the nature of sediment mixing in the Bear River basin through time and space.	HDR DTA Bellingham: Hard copy

**Table B-2 Geology and Soils.**

Resource Area	Author	Date	Title	Publisher	Source/Agency Recommendation	Reference is:	Summary Description	Location
Geology and Soils	James, L.A.	1996	Polynomial and power functions for glacial valley cross-section morphology.	Earth Surface Processes and Landforms 21: 413-432.	--	Relevant as background information; not cited in text.	Glacial, Geomorphology - This paper discusses an empirical evaluation of glacial trough cross-section shape that is performed on seven vertical cross-sections in three Sierra Nevada valleys glaciated during the late Quaternary. Power and second-order polynomial functions are fitted by statistical regression.	HDR DTA Bellingham: Hard copy
Geology and Soils	James, L.A. and Jerry D. Davis.	1994	Glaciation and Hydraulic Gold-Mining Sediment in the Bear and South Yuba Rivers, Sierra Nevada: field trip guide, April 1-3, 1994.	Association of American Geographers, San Francisco National Meeting.	--	Relevant. Cited in text.	Field trip to present concepts of landform change in the Yuba and Bear basins over time scales ranging from millions of years to the last few years.	HDR DTA Bellingham: Hard copy
Geology and Soils	James, L.A., Singer, M.B., Ghoshal, S., and Megison, M.	2009	Historical channel changes in the lower Yuba and Feather Rivers, California: Long-term effects of contrasting river-management strategies.	in James, L.A., Rathburn, S.L., and Whittecar, G.R., eds., Management and Restoration of Fluvial Systems with Broad Historical Changes and Human Impacts: Geological Society of America Special Paper 451, p. 57-81, doi: 10.1130/2008.2451(04)	--	--		
Geology and Soils	Jenkins, Dennis Bruce.	1980	Petrology and structure of the slate creek ultramafic body, Yuba County, California; 1980 Petrology and structure of the slate creek ultramafic body, Yuba County, California.	MSc Thesis, U.C. Davis.	FWN PAD Questionnaire Response July 27, 2009	Potentially relevant as background information specific to petrology but not used nor cited in text. Refer to Day et al. 1985.	Details of the Slate Creek ultramafic body in Yuba County. Plutons within the complex are variably deformed and metamorphosed and have produced contact metamorphic zones where they intrude the ultramafic rocks.	U.C. Davis: Hard copy.
Geology and Soils	Kondolf, G.M.	1995	Managing bedload sediment in regulated rivers: Examples from California, USA. Natural and Anthropogenic Influences in Fluvial Geomorphology.	Geophysical Monograph 89. American Geophysical Union. 239 pp.	--	Relevant. Cited in text.	Contradictions of sediment management. Gravel extraction versus spawning gravel management and the disjunct between the two.	HDR DTA Bellingham: Hard copy.
Geology and Soils	Kondolf, G.M. And W.V. Mathews	1991	Management of Coarse Sediment in Regulated Rivers of California.	University of California, Berkeley.	--	Relevant as background information; not cited in text.	--	HDR DTA Sacramento
Geology and Soils	Lindgren, W.	1911	Tertiary Gravels of the Sierra Nevada of California.	U.S. Geological Survey Professional Paper 73.	FWN PAD Questionnaire Response July 27, 2009.	--	A reference for the gold-bearing Tertiary gravels of the Sierra Nevadas that produced so much of the placer gold during the California Gold Rush.	<a href="http://books.google.com/books?id=Ex9PRAACA AJ&amp;dq=lindgren+tertiary&amp;cd=4">http://books.google.com/books?id=Ex9PRAACA AJ&amp;dq=lindgren+tertiary&amp;cd=4</a>
Geology and Soils	Ludington, Steve, Moring, Barry C. , Miller, Robert J. , Flynn, Kathryn S. , Stone, Paul A. , and Bedford, David R.	2005	Preliminary integrated databases for the United States - Western States: California, Nevada, Arizona, and Washington.	U.S. Geological Survey Open-File Report OFR 2005-1305, U.S. Geological Survey, Reston, Virginia, USA.	--	Relevant. Cited in text.	BLM source for table of data for generalized geologic parent material.	BLM
Geology and Soils	May, J.T., Hothem, R.L., Alpers, C.N., and Law, M.A.	2000	May, J.T., Hothem, R.L., Alpers, C.N., and Law, M.A., 2000, Mercury bioaccumulation in fish in a region affected by historic gold mining: The South Yuba River, Deer Creek, and Bear River Watersheds, California, 1999	U.S. Geological Survey Open File Report 00-367, 30 p.	--	--		<a href="http://ca.water.usgs.gov/archive/reports/ofr00367/index.html">http://ca.water.usgs.gov/archive/reports/ofr00367/index.html</a>
Geology and Soils	MBK	2006	Yuba County Multi-Jurisdictional Multi-Hazard Mitigation Plan Comprehensive Flood Study, Appendix A: Water Resources Review Document Summary Report.	MBK Engineers, Sacramento, CA, 67 p.	--	--		

**Table B-2 Geology and Soils.**

Resource Area	Author	Date	Title	Publisher	Source/Agency Recommendation	Reference is:	Summary Description	Location
Geology and Soils	McCain, M. D. Fuller L. Decker and K. Overton.	1990	Stream Habitat Classification and Inventory Procedures for Northern California Fish Habitat Relationships.	Currents, Fish Habitat Relationships Technical Bulletin . USDA Forest Service, San Francisco, California.; 1990. Notes: downloaded pdf.	FWN PAD Questionnaire Response July 27, 2009.	Relevant in habitat mapping report as part of Instream Flow section but not part of Geology and Soils.	Description of stream habitat inventory procedure that classifies and quantifies fish habitat in terms of channel features.	HDR\DTA O:\YCWA\PAD\Geology Soils YCWA\YCWA G&S References.
Geology and Soils	MEI	2008	Two-dimensional Modeling to Evaluate the Alternative 2-C Fish Screen Design Yuba River California.	Mussetter Engineering, Inc., Fort Collins, CO, 64 p.	--	--		
Geology and Soils	Merwin, R.W.	1968	Gold resources in the Tertiary gravels of California.	U.S. Bureau of Mines Technical Progress Report, Heavy Metals Program, no.3, 14 pp.	--	Relevant; cited in text (as cited in James 1988).	Details about gold within the tertiary gravels deposited by the ancestral Yuba River.	HDR\DTA Bellingham: Hard copy of James 1988.
Geology and Soils	Miller, M.C., I.N. McCave, and P.D. Komar	2005	Threshold of sediment motion under unidirectional currents	Sedimentology, v. 24, no. 4, pp. 507-525	--	Relevant; cited in Channel Morphology Study Plan that is included as an attachment to the PAD	Discussion about appropriate values of Shields' parameter in natural streams.	<a href="http://www.fhwa.dot.gov/engineering/hydraulics/pubs/03052/05.cfm">http://www.fhwa.dot.gov/engineering/hydraulics/pubs/03052/05.cfm</a>
Geology and Soils	Moir, H.J. and G.B. Pasternak	2008	Interactions between meso-scale morphological unites, stream hydraulics and chinook salmon ( <i>Oncorhynchus tshawytscha</i> ) spawning habitat on the lower Yuba River, California.	Geomorphology 100, p. 527-548.	--	Relevant; cited in text (as cited in Sawyer et al. 2009).	Prior study supporting more current work of Sawyer et al. (2009) - mapping and habitat assessment on lower Yuba.	HDR:DTA Bellingham: Hard copy of Sawyer et al. 2009.
Geology and Soils	Moir, H.J. and G.B. Pasternak	2010	Substrate requirements of spawning Chinook salmon ( <i>Oncorhynchus tshawytscha</i> ) are dependent on local channel hydraulics.	River Research and Applications 26:456-468.	--	--		
Geology and Soils	Monohan, Carrie.	2007	Data Gaps Analysis on the Yuba and Bear Rivers. Foothills Water Network. March 30, 2007.		FWN PAD Questionnaire Response July 27, 2009.	Not available at time of PAD preparation.	Data Gaps Analysis on the Yuba and Bear Rivers. Foothills Water Network. March 30, 2007.	On FWN disc (pending).
Geology and Soils	Monahan, William J.	1970	Yuba River Story.	Yuba County Water Agency	SYRCL PAD Questionnaire Response July 17, 2009		Includes statistics and photographs of YRDP construction.	
Geology and Soils	Montgomery, D.R. and J.M. Buffington	1993b	Channel classification table (from TFW-SH10-93-002).	Endreny, T.A., 2003, Fluvial Geomorphology Module, UCAR COMET Program and NOAA River Forecast Center, <a href="http://www.fgmorph.com">http://www.fgmorph.com</a> , Syracuse, NY	--	Relevant; cited in PAD text	Geomorphic classification system within fluvial geomorphology on-line training module. Developed by Montgomery and Buffington	<a href="http://www.fgmorph.com/fg_4_11.php">http://www.fgmorph.com/fg_4_11.php</a>
Geology and Soils	Montgomery, D.R. and J.M. Buffington	1993a	Channel classification, prediction of channel response, and assessment of channel condition.	Report TFW-SH10-93-002; prepared for the SHAMW committee of the Washington State Timber/Fish/Wildlife Agreement	--	Relevant; cited in PAD text	Process-based landscape and channel classification system as a framework to assessing watershed response to natural and anthropogenic environmental change.	HDR\DTA Bellingham: Hard copy
Geology and Soils	Montgomery, D.R. and J.M. Buffington	1997	Channel reach morphology in mountain drainage basins.	GSA Bulletin 109: 596-611	--	Relevant; cited in PAD text	A process-based framework within which to assess channel condition and response potential in mountain drainage basins.	HDR\DTA Bellingham: Hard copy
Geology and Soils	Mueller, E.R., J.Pitlick, and J.M. Nelson	2005	Variation in the reference Shield's stress for bedload transport in gravel-bed streams and rivers	Water Resources Research 41:W04006, DOI: 10.1029/2004WR003692	--	Relevant; cited in Channel Morphology Study Plan that is included as an attachment to the PAD	Discussion about appropriate values of Shields' parameter in natural streams.	HDR\DTA Bellingham: Hard copy

**Table B-2 Geology and Soils.**

Resource Area	Author	Date	Title	Publisher	Source/Agency Recommendation	Reference is:	Summary Description	Location
Geology and Soils	Nevada Irrigation District (NID) and PG&E	2009	Technical Memorandum 3-5 Instream Flow, Attachment 3.5A Habitat Mapping and Channel Characterization Report for the Yuba-Bear Hydroelectric Project, FERC Project No. 2266.	NID	--	Relevant; cited in PAD text	data compiled from aerial videos, ground mapping, geologic, and topographic maps to assess habitat in Project streams of NID Yuba-Bear Project	HDR/DTA Bellingham: DVD with report, photographs, and data
Geology and Soils	PG&E	2009	Technical Memorandum 3-5 Instream Flow, Attachment 3.5A Habitat Mapping and Channel Characterization Report for the Drum-Spaulding Hydroelectric Project, FERC Project No. 2266.	PG&E	--	Relevant; cited in PAD text	data compiled from aerial videos, ground mapping, geologic, and topographic maps to assess habitat in Project streams of PG&E's Drum-Spaulding Project	HDR/DTA Bellingham: DVD with report, photographs, and data
Geology and Soils	Nevada Irrigation District (NID)	2010a	Technical Memorandum 2-4 Hydrologic Alteration Report for the Yuba-Bear Hydroelectric Project, FERC Project No. 2266.	NID	--	Relevant; cited in PAD text	data and analysis of hydrology for the NID's Yuba-Bear Project	<a href="http://www.eurekasw.com/NID/default.aspx">http://www.eurekasw.com/NID/default.aspx</a>
Geology and Soils	Nevada Irrigation District (NID)	2010b	Technical Memorandum 9-1 Roads and Trails Report for the Yuba-Bear Hydroelectric Project, FERC Project No. 2266.	NID	--	Relevant; cited in PAD text	data and analysis of roads and trails for the NID's Yuba-Bear Project	<a href="http://www.eurekasw.com/NID/default.aspx">http://www.eurekasw.com/NID/default.aspx</a>
Geology and Soils	PG&E	1992	Yuba County Water Agency Our House Dam Sediment Removal Project.	Hydro and Engineering Department.	--	Relevant; cited in PAD text	Details of sediment removal from Our House Dam	HDR:DTA Bellingham: CD with files
Geology and Soils	PG&E	1997	Yuba County Water Agency 1997 Storm Damage Our House Diversion Restoration of Channel Pool and Dam	PG&E	--	Relevant; cited in PAD text	Details of sediment removal from Our House Dam	HDR/DTA Bellingham: Hard copy
Geology and Soils	Pacific Stewardship Council	2007	Pacific Stewardship Council Narrows Planning Area. November 2007.		FWN PAD Questionnaire Response July 27, 2009	Not available at time of PAD preparation.	Pacific Stewardship Council Narrows Planning Area. November 2007.	On FWN disc (pending)
Geology and Soils	PG&E Geosciences Department and Piedmont GeoSciences, Inc.	2003	Regional Geology, Seismicity, and General Ground Motion Consideration for the Drum/Spaulding Hydroelectric System: Placer and Nevada Counties, California. July 31, 2003. Prepared for Hydro Generation Department of PG&E.	PG&E	--	Relevant as background information; not cited in text.	Compiles and summarizes the existing geologic and seismic information for the Drum/Spaulding hydroelectric system. This report accompanies a series of reports that utilize the available information to estimate seismic ground motions at 15 of the larger dams in the system.	HDR/DTA Bellingham: Hard copy
Geology and Soils	Page, W.E. and T.L. Sawyer	2004	Overview of the late Cenozoic faulting in the Sierra Nevada Foothills (including a reassessment of faults near Bullards Bar Dam).	Appendix E of Geomatrix 2004.	--	Relevant; cited in text as part of Geomatrix 2004	Summary of Cenozoic faulting in the Sierra Nevada foothills	HDR:DTA Bellingham: Hard copy of Geomatrix 2004.
Geology and Soils	Parker, Gary	2004	Surface and Substrate Median Sizes	National Center for Earth-Surface Dynamics. Stream Restoration Program. Enabling Landscape Sustainability.	--	Relevant; cited in Channel Morphology Study Plan that is included as an attachment to the PAD	Discussion and methods to understand and quantify channel armoring.	<a href="http://74.125.95.132/search?q=cache:BFXZ21zHZu4J:vtchl.uiuc.edu/people/parkerg/_private/EnablerTools/BankfullDischargeEstimator.ppt+dietch+iked+armor&amp;cd=7&amp;hl=en&amp;ct=clnk&amp;gl=us">http://74.125.95.132/search?q=cache:BFXZ21zHZu4J:vtchl.uiuc.edu/people/parkerg/_private/EnablerTools/BankfullDischargeEstimator.ppt+dietch+iked+armor&amp;cd=7&amp;hl=en&amp;ct=clnk&amp;gl=us</a>
Geology and Soils	Pasternack, G.B.	2008	SHIRA-based river analysis and field-based manipulative sediment transport experiments to balance habitat and geomorphic goals on the lower Yuba River.	Cooperative Ecosystems Studies Unit (CESU) 81332 6 J002 Final Report, University of California at Davis, Davis, CA, 569pp	--	Relevant; cited in text as part of Sawyer et al. 2009.	Prior study supporting more current work of Sawyer et al. (2009) - mapping and habitat assessment on lower Yuba.	HDR:DTA Bellingham: Hard copy of Sawyer et al. 2009.
Geology and Soils	Pasternack, G.B.	2009	Current Status of an On-going Gravel Injection Experiment on the Lower Yuba River, CA.	--	--			

**Table B-2 Geology and Soils.**

Resource Area	Author	Date	Title	Publisher	Source/Agency Recommendation	Reference is:	Summary Description	Location
Geology and Soils	Pasternak, G.B. and C.Eilers.	2009	Morphological unit and mesohabitat classification. In press. For discussion purposes only. Subject to revision.	Appendix X, Procedures and Protocols for Morphological Unit and Mesohabitat Classification, April 25, 2009.	--	Relevant; cited in text	The goals of the morphological unit and mesohabitat classification are to: (1) Identify mesohabitat units throughout the lower Yuba River; (2) Evaluate the quality, number, size and distribution of mesohabitats for various lifestages of adult and juvenile anadromous salmonids; and (3) Evaluate the maintenance of watershed processes in the lower Yuba River.	HDR\DTA O:\YCWA\PAD\Geology Soils YCWA\YCWA G&S References
Geology and Soils	Pasternack, G. B., Fulton, A. A., and Morford, S. L	2010	Yuba River analysis aims to aid spring-run Chinook salmon habitat rehabilitation.	California Agriculture 64:2:69-77.	--	--		
Geology and Soils	Petersen, K.	2003	Personal communication with K. Peterson of South Feather Water and Power Agency by Jay Stallman, August 14th.	Personal communication.	--	Relevant; cited in text	Details about large woody debris removal from South Feather facilities	HDR\DTA O:\YCWA\PAD\Geology Soils YCWA\YCWA G&S References (FLA for South Feather Power)
Geology and Soils	Petersen, K.	2004	Personal communication with K. Peterson of South Feather Water and Power Agency by Jay Stallman, August 3rd.	Personal communication.	--	Relevant; cited in text	Details about large woody debris removal from South Feather facilities	HDR\DTA O:\YCWA\PAD\Geology Soils YCWA\YCWA G&S References (FLA for South Feather Power)
Geology and Soils	Pfankuch, D.J.	1975	Stream reach inventory and channel stability evaluation.	USDA Forest Service, R1-75-002. Washington D.C., 26pp	--	Relevant; cited in Channel Morphology Study Plan that is included as an attachment to the PAD	Methods developed to systemize measurements and evaluation of the resistive capacity of mountain stream channels to the detachment of bed and bank materials and ability of channel to adjust to changes in input variables.	HDR\DTA Bellingham: Hard copy
Geology and Soils	Richter, B.D., J.V. Baumgartner, J. Powell, and D.P. Braun	1996	A method for assessing hydrologic alteration within ecosystems	Conservation Biology 10:1163-1174	--	Relevant; cited in text	Suggested traditional IHA statistics used to characterize the hydrologic attributes of a stream	<a href="http://www.nature.org/initiatives/freshwater/files/assesshydroalt.pdf">http://www.nature.org/initiatives/freshwater/files/assesshydroalt.pdf</a>
Geology and Soils	Rosgen, D.L.	1996	Applied River Morphology	Wildland Hydrology, Pagosa Spring, Colorado.	--	Relevant; cited in PAD text	Classification system for rivers	HDR\DTA Bellingham: Book (Hard copy)
Geology and Soils	Ruediger, R. and J. Ward.	1996	Abundance and function of large woody debris in central Sierra Nevada streams.	FHR Currents, Fish Habitat Relationship Technical Bulletin No. 20. U.S. Forest Service, Pacific Southwest Region, Arcata, California [Prepared by Stanislaus National Forest, Sonora, California].	--	Relevant; cited in PAD text	LWD abundance and function in the Sierra Nevada	HDR\DTA Bellingham: Hard copy
Geology and Soils	Saucedo, G.J. and D.L. Wagner (compilers).	1992	Geological Map of the Chico Quadrangle.	California Dept of Cons., Division of Mines and Geology.	--	Relevant; cited in PAD text	Geologic map of the Chico area.	HDR\DTA Bellingham: Hard copy
Geology and Soils	Sawyer, A.M.	2006	Hydraulic Roughness of Willows on the banks of the Lower Yuba River in Timbuctoo Bend.	University of California, Davis, Term Paper for GEL139 class.	--	--		
Geology and Soils	Sawyer, A.M., G.B. Pasternack, H.J. Moir, and A.A. Fulton.	2009	Riffle-pool maintenance and flow convergence routing observed on a large gravel-bed river	Geomorphology (2009), doi:10.1016/j.geomorph.2009.06.021.	--	Relevant; cited in PAD text	Multiple scales of channel non-uniformity and a dynamic flow regime caused the observed maintenance of the pool-riffle morphology through the mechanism of "flow convergence routing".	HDR\DTA Bellingham: Hard copy
Geology and Soils	Schwartz, D.P., F.H. Swan, R.E. Harpster, T.H. Rogers, and D.E. Hitchcock	1977	Surface faulting potential: Earthquake Evaluation Studies of the Auburn Dam Area, Volume 2.	Report by Woodward-Clyde Consultants to the U.S. Bureau of Reclamation, Denver; 135 p. plus appendices.	--	Relevant; cited in PAD text as part of PG&E and Piedmont 2003	Surface faulting potential in the project vicinity	HDR\DTA Bellingham: Hard copy of PG&E and Piedmont 2003

**Table B-2 Geology and Soils.**

Resource Area	Author	Date	Title	Publisher	Source/Agency Recommendation	Reference is:	Summary Description	Location
Geology and Soils	Schweickert, R.A., N.L. Bogen, G.H. Birty, R.E. Hanson, and C. Merguerian.	1984	Timing and structural expression of the Nevadan Orogeny, Sierra Nevada, California.	GSA Bulletin v. 95; no.8; p. 967-979.	--	Relevant; cited in PAD text	Sierra Nevada orogeny	<a href="http://gsabulletin.gsapubs.org/content/95/8/967.abstract">http://gsabulletin.gsapubs.org/content/95/8/967.abstract</a>
Geology and Soils	Sierra Nevada Ecosystem Project (SNEP)	1996	Status of the Sierra Nevada Ecosystem Project Final Report to Congress.	Regents of the University of California.	--	Relevant; cited in PAD text	The website provides portions of the report by resource area. Click on "Index to Online Documents" and each section of the report is provided in pdf format.	<a href="http://ceres.ca.gov/snep/">http://ceres.ca.gov/snep/</a>
Geology and Soils	Snyder N.P., Charles N. Alpers, Lorraine E. Flint, Jennifer A. Curtins, Margaret A. Hampton, Brian J. Haskell, and Dennis L. Nielson	2004	Report on the May-June 2002 Englebright Lake deep coring campaign: USGS Open-File Report 2004-1061. 10 pp.	USGS Open-File Report 2004-1061. 10 pp.	FWN PAD Questionnaire Response July 27, 2009	Relevant as background information; not cited in text.	Englebright Reservoir coring program description.	<a href="http://pubs.usgs.gov/of/2004/1061/">http://pubs.usgs.gov/of/2004/1061/</a>
Geology and Soils	Snyder, N. P., S. A. Wright, C. N. Alpers, L. E. Flint, C. W. Holmes, and D. M. Rubin	2006	Reconstructing depositional processes and history from reservoir stratigraphy: Englebright Lake, Yuba River, northern California.	J. Geophys. Res., 111, F04003, doi:10.1029/2005JF000451.	FWN PAD Questionnaire Response July 27, 2009	Relevant as background information; not cited in text.	Analyzed sediment cores from Englebright Lake in the context of hydrologic history, climate variation, and depositional processes.	HDR\DTA: O:\YCWA\PAD\Geology Soils YCWA\YCWA G&S References
Geology and Soils	Snyder, N.P.	2006	Using Stratigraphic and Hydrologic Data from the Yuba River System to Develop Reliable Sediment Transport Predictions.	CALFED Science Fellows Program. R/SF-6: 12.1.2002-11.30.2004.	--	Relevant as background information; not cited in text.	In 1998, a CALFED task force recommended studying the feasibility of removing or lowering the Englebright Dam to return steelhead trout and springrun salmon to the Upper Yuba River.	<a href="http://repositories.cdlib.org/csgc/rp/CFSny06_01">http://repositories.cdlib.org/csgc/rp/CFSny06_01</a>
Geology and Soils	Snyder, N.P. and M.A. Hampton	2003	Preliminary Cross Section of Englebright Lake Sediments.	Open-File Report 03-397. Poster. Santa Cruz, California.	FWN PAD Questionnaire Response July 27, 2009	Relevant as background information; not cited in text.	Poster presents a cross-sectional portrait of the reservoir sediments, and explains how the figure was produced by integrating historic, field, and laboratory data sets.	<a href="http://geopubs.wr.usgs.gov/open-file/of03-397/">http://geopubs.wr.usgs.gov/open-file/of03-397/</a>
Geology and Soils	Snyder, N.P., D.M. Rubin, C.N. Alpers, J.R. Childs, J.A. Curtis, L.E. Flint, and S.A. Wright	2004	Estimating accumulation rates and physical properties of sediment behind a dam: Englebright Lake, Yuba River, northern California	Water Resources Research, Vol. 40: W11301, doi:10.1029/2004WR003279. 19 pp.	FWN PAD Questionnaire Response July 27, 2009	Relevant; cited in PAD text	Results of a thorough quantification of the contents of Englebright Lake, accomplished by extrapolating data from an extensive coring campaign. It also discusses the limitations of the methods and results, and their implications for a local habitat restoration program and future reservoir studies.	<a href="http://www2.bc.edu/%7Esnydemo/snyder_etal_2004.pdf">http://www2.bc.edu/%7Esnydemo/snyder_etal_2004.pdf</a>
Geology and Soils	Snyder, N.P., D.M. Rubin, C.N. Alpers, J.R. Childs, J.A. Curtis, L.E. Flint, and S.A. Wright	2004	Rates and history of sediment accumulation behind Englebright Dam,	Abstract for 2004 CALFED Science Conference.	--	Relevant as background information; not cited in text.	Quantified the mass, physical properties, and emplacement history of the material deposited behind Englebright Dam.	<a href="http://www.agu.org/pubs/crossref/2004/2004WR003279.shtml">http://www.agu.org/pubs/crossref/2004/2004WR003279.shtml</a>
Geology and Soils	Snyder, N.P., D.M. Rubin, C.N. Alpers, J.R. Childs, J.A. Curtis, L.E. Flint, and S.A. Wright	2004	Sediment grain-size and loss-on-ignition analyses from 2002 Englebright Lake coring and sampling campaigns	USGS Open-File Report 2004-1080. 46 pp.	--	Relevant as background information; not cited in text.	Sedimentologic data from three 2002 sampling campaigns conducted in Englebright Lake. This work was done to assess the properties of the material deposited in the reservoir between completion of Englebright Dam in 1940 and 2002, as part of the Yuba River Studies Program.	<a href="http://pubs.usgs.gov/of/2004/1080/">http://pubs.usgs.gov/of/2004/1080/</a>

**Table B-2 Geology and Soils.**

Resource Area	Author	Date	Title	Publisher	Source/Agency Recommendation	Reference is:	Summary Description	Location
Geology and Soils	South Feather Water and Power Agency (SFWPA)	2007	Application for a new license. Exhibit E. Geological Resources. Chapter E11.	South Feather Power Project. FERC Project No. 2088. March 2007	--	Relevant; cited in PAD text	Relevant details for "above project" from license application	HDR\DTA: O:\YCWA\PAD\Geology Soils YCWA\YCWA G&S References
Geology and Soils	STATSGO	2008	U.S. General Soil Map for California.	Soil Survey Staff, Natural Resources Conservation Service. USDA.	--	Relevant as background information; not cited in text.	Soil data for the Project Area	<a href="http://soildatamart.nrcs.usda.gov">http://soildatamart.nrcs.usda.gov</a>
Geology and Soils	Stillwater Sciences (SWS)	2010 (in prep)	Yuba County Water Agency Sediment Pass-Through Program at Our House Dam Working Draft Operations and Monitoring Plan. Prepared for Yuba County Water Agency by Stillwater Sciences, March 2010. Not yet released.	YCWA	--	--	--	--
Geology and Soils	Surpless, B.E., D.F. Stockli, T.A. Dumitru, E.L. Miller, and K.A. Farley	2000	Post-15 Ma westward structural and thermal encroachment of Basin and Range type extension into the northern Sierra Nevada	GSA Abstracts with Programs, v.32, no. 7, p. A43.	--	Relevant; cited in PAD text as part of PG&E and Piedmont 2003	Background and detail regarding Basin and Range extension.	HDR\DTA Bellingham: Hard copy of PG&E and Piedmont 2003
Geology and Soils	SWRI	2003	Biological Assessment, Yuba River Development Project (Ferc No. 2246) Proposed License Amendment.	Surface Water Resources, Inc., Sacramento, CA, 127 p.	--	--	--	--
Geology and Soils	SYRCL	In Press	SYRCL - Geomorphic and Hydrologic Analysis of Lower Yuba Reach between Daguerre and Hammond Park (Goldfields) – Expected release December 2009	--	SYRCL PAD Questionnaire Response July 17, 2009	Not available at time of PAD preparation.	--	Not yet available
Geology and Soils	SYRCL	In Press	SYRCL Spatial Analysis of Yuba Rivers and Risk Assessment – Expected release April 2009	--	SYRCL PAD Questionnaire Response July 17, 2009	Not available at time of PAD preparation.	--	Not yet available
Geology and Soils	Three Rivers Levee Improvement Authority (TRLIA)	2006	Draft Environmental Impact Report for the Feather River Levee Repair Project, an element of the Yuba-Feather Supplemental Flood Control Project. Prepared by EDAW Flood Control Study Team. August. Chapter 5-3 - Water Resources	State Clearinghouse No. 2006062071.	--	Relevant; cited in PAD text	Environmental details of Feather River Levee.	<a href="http://www.trlia.org/Feather%20River%20EIR.asp">http://www.trlia.org/Feather%20River%20EIR.asp</a>
Geology and Soils	Three Rivers Levee Improvement Authority (TRLIA)	2009	Evaluation of Groundwater Impacts from the Upper Yuba River South Levee Repair Activities.	Prepared by MWH for TRLIA, November 2009.	--	--	--	--
Geology and Soils	Tinker, K. and E. Wohl	1998	A Primer on Bedrock Channels IN: Rivers over Rock: Fluvial Processes in Bedrock Channels.	Geophysical Monograph 107, American Geophysical Union. 323 pp.	--	Relevant; cited in PAD text	Comprehensive treatment of previous work on bedrock channels as central and important elements in the development of regional landscapes.	HDR\DTA Bellingham: Hard copy (book)

**Table B-2 Geology and Soils.**

Resource Area	Author	Date	Title	Publisher	Source/Agency Recommendation	Reference is:	Summary Description	Location
Geology and Soils	U.S. Army Corps of Engineers	1998	Feasibility Report, Yuba River Basin Investigation, California. 1998.	U.S. Army Corps of Engineers	FWN PAD Questionnaire Response July 27, 2009	Not available. Not enough information to locate.	California passed a bill to adopt and authorize a project for flood protection along the Feather and Yuba Rivers pursuant to the ACE report entitled "Yuba River Basin Investigation, California, Final Feasibility Report" dated April 1998.	Searched Army Corps of Engineers data base for document - not located
Geology and Soils	U.S. Army Corps of Engineers (USACE)	2002	Analysis of the Yuba River Surface and Groundwater Flows in the Vicinity of Marysville, California.	Prepared by Tetra Tech. Sacramento, CA.	--	--		
Geology and Soils	U.S. Army Corps of Engineers (USACE)	2006	User's Manual. HEC-RAS River Analysis System. Version 4.0. November 2006	U.S. Army Corps of Engineers	--	Relevant; cited in Channel Morphology Study Plan that is included as an attachment to the PAD	Users guide and guidance for using HEC-RAS	<a href="http://www.hec.usace.army.mil/software/hecras/documents/HEC-RAS_4.0_Reference_Manual.pdf">http://www.hec.usace.army.mil/software/hecras/documents/HEC-RAS_4.0_Reference_Manual.pdf</a>
Geology and Soils	U.S. Army Corps of Engineers (USACE)	2007	Lower Yuba River Pilot Gravel Injection Project, Yuba And Nevada Counties, California. Draft Environmental Assessment.	--	--	--		
Geology and Soils	U.S. Army Corps of Engineers (USACE)	2008	HEC-RAS River Analysis System. Version 4.0.0. March 2008	U.S. Army Corps of Engineers	--	Relevant; cited in Channel Morphology Study Plan that is included as an attachment to the PAD	Users guide and guidance for using HEC-RAS	<a href="http://www.hec.usace.army.mil/software/hecras/hecras-download.html">http://www.hec.usace.army.mil/software/hecras/hecras-download.html</a>
Geology and Soils	U.S. Army Corps of Engineers (USACE)	1989	Engineering and Design - Sedimentation Investigations of Rivers and Reservoirs Publication Number: EM 1110-2-4000. Publication Date: December 1989	U.S. Army Corps of Engineers	--	Relevant; cited in Channel Morphology Study Plan that is included as an attachment to the PAD	One dimensional steady state simulation model designed to analyze long-termed scour and deposition in rivers and reservoirs	<a href="http://140.194.76.129/publications/eng-manuals/em1110-2-4000/toc.htm">http://140.194.76.129/publications/eng-manuals/em1110-2-4000/toc.htm</a>
Geology and Soils	U.S. Army Corps of Engineers (USACE)	1981	Guidelines for the Calibration and Application of Computer Program HEC-6. Training Document No. 13. The Hydrologic Engineering Center, Davis, Calif	U.S. Army Corps of Engineers	--	Relevant; cited in Channel Morphology Study Plan that is included as an attachment to the PAD	One dimensional steady state simulation model designed to analyze long-termed scour and deposition in rivers and reservoirs	<a href="http://oai.dtic.mil/oai/oai?verb=getRecord&amp;metadataPrefix=html&amp;identifier=ADA106706">http://oai.dtic.mil/oai/oai?verb=getRecord&amp;metadataPrefix=html&amp;identifier=ADA106706</a>
Geology and Soils	United States Forest Service (USFS).	2002	South Yuba Watershed Assessment	USDA Forest Service, Tahoe National Forest	--	Relevant; cited in PAD text	Description of ecological, social, and physical characteristics of the South Yuba Forest Service lands	HDR DTA Bellingham: Hard copy and pdf: O:\NID\PAD (S)\Geology and Soils\G&S Literature&Resources

**Table B-2 Geology and Soils.**

Resource Area	Author	Date	Title	Publisher	Source/Agency Recommendation	Reference is:	Summary Description	Location
Geology and Soils	United States Geological Service (USGS)	1982	Guidelines for Determining Flood Flow Frequency. Bulletin #17B of the Hydrology Subcommittee	USGS	--	Relevant; cited in Channel Morphology Study Plan that is included as an attachment to the PAD	Provides guidelines and methods for calculating exceedances for flows.	<a href="http://water.usgs.gov/osw/bulletin17b/bulletin_17B.html">http://water.usgs.gov/osw/bulletin17b/bulletin_17B.html</a>
Geology and Soils	United States Geological Service (USGS)	2007	Bear-Yuba Watersheds Interagency Abandoned Mine Lands Project	USGS	--	Relevant as general information in water quality section; did not use in Geology and Soils.	Website contains links to USGS reports and papers regarding mercury contamination related to abandoned mines in the Yuba-Bear watershed.	<a href="http://ca.water.usgs.gov/mercury/bear-yuba/">http://ca.water.usgs.gov/mercury/bear-yuba/</a>
Geology and Soils	Unruh, J.R	1991	The uplift of the Sierra Nevada and implications for Late Cenozoic epeirogeny in the western Cordillera	Geol. Soc. America Bull., v. 103, n. 12, p. 1395-1404	--	Relevant; cited in PAD text as part of PG&E and Piedmont 2003.	Background and detail regarding Sierra Nevada orogeny.	HDR DTA Bellingham: Hard copy of PG&E and Piedmont 2003
Geology and Soils	Upper Yuba River Studies Program Team.	2003	Interim Report; Summary of Current Conditions in the Yuba Watershed. October 2003.	California Department of Water Resources	FWN PAD Questionnaire Response July 27, 2009	Relevant as background information; not cited in text.	Includes discussion and statistics concerning sediment processes, water quality, hydrology and fish passage. Salmon, Steelhead Fish Passage- This document presents information that is the result of preliminary data collection and field studies conducted by the Study Team to characterize current conditions in the Yuba River watershed and assess the potential for the river upstream of Englebright Dam to support wild Chinook salmon and steelhead.	HDR DTA Sacramento: Data\Client files\Yuba County Water Agency\Projects\YDRP Relicensing\Technical References\04- Aquatic Resources\Environ & Engr Refs--Aquatic Resources
Geology and Soils	US Geological Survey	Various	USGS Bathymetric geophysical surveys on Englebright Lake.	Various	FWN PAD Questionnaire Response July 27, 2009	Not enough information to locate specific references. Information likely contained in Snyder and Curtis references, which are cited in PAD text.	Data and discussion of debris sedimentation in Englebright Reservoir and possible results of removing Englebright Dam.	summary sheet: HDR DTA: O:\YCWA\PAD\Geology Soils YCWA\YCWA G&S References\USGS_reports_UpperYuba_9Apr07.doc
Geology and Soils	USFS Tahoe National Forest	2010	Tahoe National Forest Geomorphology. Adaptive Management Services En, USFS, Unpublished Material.	USFS	--	Relevant; cited in PAD text.	Geomorphic data layer differentiating colluvial and eroding hillslopes.	HDR DTA Sacramento (data layer)
Geology and Soils	United States Department of Agriculture Forest Service, Tahoe National Forest and U.S. Department of the Interior, Bureau of Land Management (USFS and BLM)	2002	South Yuba Watershed Assessment	USFS	--	Relevant; cited in PAD text.	discussion of the Tertiary gold deposits in the Sierra Nevada	USDA Forest Service, Tahoe National Forest

**Table B-2 Geology and Soils.**

Resource Area	Author	Date	Title	Publisher	Source/Agency Recommendation	Reference is:	Summary Description	Location
Geology and Soils	Vanoni, V.A. (ed.)	1975	Sedimentation Engineering	Prepared by the ASCE Task Committee for the Preparation of the Manual on Sedimentation of the Sedimentation Committee of the Hydraulics Division. American Society of Civil Engineers. ISBN: 0-87262-001-8	--	Relevant; cited in Channel Morphology Study Plan that is included as an attachment to the PAD	Rport on sedimentation engineering that includes analysis of limitations and applications of relevant facts and data on sedimentation engineering. Used for Wentworth particle size classification.	HDR DTA Bellingham: Hard copy
Geology and Soils	Wakabayashi, J. and T. Sawyer.	2001	Stream Incision, Tectonics, Uplift, and Evolution of Topography of the Sierra Nevada, California .	Journal of Geology; 109(5): 539-562.	FWN PAD Questionnaire Response July 27, 2009	Relevant; cited in PAD text.	How stream incision, faulting, thermochronologic, and geobarometric data suggest that Sierra Nevada topography is a consequence of two periods of uplift.	HDR DTA Bellingham: Hard copy
Geology and Soils	WE&T (Water Engineering & Technology, Inc.)	1991	Geomorphic Analysis. and Bank Protection Alternatives for Sacramento River (RM 0-78), Feather River (RM 28-61), Yuba River (RM 0-11), Bear River (RM 0-17), American River (RM 0-23), and portions of Three Mile, Steamboat, Sutler, Miner, Georgiana, Elk and Cache Sloughs.	Prepared for: U.S. Army Corps of Engineers, Sacramento District, Sacramento, California. Contract No. DACW05-88-D-Q044, Delivery Order #14, (Modifications #01,#02), Delivery Order #15.	--	Relevant; cited in PAD text.	Prepared by Water Engineering & Technology, Inc., 419 Canyon Avenue, Suite 225, Fort Collins, Colorado 80521	HDR DTA Bellingham: O:\YCWA\PAD\Geology Soils YCWA\YCWA G&S References
Geology and Soils	WFPB (Washington Forest Practices Board)	1995	Board Manual: Standard Methodology for Conducting Watershed Analysis. Version 3.0. November 1995.	Washington Department of Natural Resources	--	Relevant; cited in PAD text.	Methods for conducting watershed analysis in Washington state.	HDR DTA Bellingham: Hard copy
Geology and Soils	White, J.Q.	2006	Independent Project: Characterizing the morphology of the anthropogenetically influenced Yuba River at Timbuctoo Bend.	University of California, Davis, Term Paper for GEL139 class.	--	--		
Geology and Soils	White, J.Q.	2008	Valley Width Controls on Riffle Location and Persistence on a Gravel Bed River.	M.S. Thesis, University of California, Davis, CA, 64 p.	--	--		
	White, J. Q., Pasternack, G. B., and Moir, H. J.	In Press	Valley width variation influences riffle-pool location and persistence on a rapidly incising gravel-bed river.	Geomorphology.	--	--		
Geology and Soils	Wolman, M.G.	1954	A method of sampling coarse river-bed material	Transactions of American Geophysical Union 35: 951-956	--	Relevant; cited in Channel Morphology Study Plan that is included as an attachment to the PAD	Method for quantifying substrate size using pebble counts.	HDR DTA Bellingham: Hard copy
Geology and Soils	Yarnell, Sarah M., J.H. Viers, and J.F. Mount	2010	Ecology and Management of the Spring-Snowmelt Recession. Draft April 2008.	BioScience 60(2): 114-127 doi: 10.1525/bio.2010.60.2.6	FWN PAD Questionnaire Response July 27, 2008	Not relevant as existing information; relevant to scientific inquiry and analysis.	Conceptual model for the ecology of the spring snowmelt recession based on the natural flow regime that relates the quantifiable components of magnitude, timing, and rate of change to abiotic and biotic factors that govern riverine processes.	HDR DTA: O:\YCWA\PAD\Geology Soils YCWA\YCWA G&S References
Geology and Soils	Yuan, G.	1979	The Geomorphic Development of a Hydraulic Mining Site in Nevada County, California.	Unpublished Masters Thesis, Palo Alto: Applied Earth Sciences Department. Stanford University: 1979.	FWN PAD Questionnaire Response July 27, 2009	--	--	Stanford University: Hard copy

**Table B-2 Geology and Soils.**

Resource Area	Author	Date	Title	Publisher	Source/Agency Recommendation	Reference is:	Summary Description	Location
Geology and Soils	Yuba Accord River Management Team (YARMT)	2009	Lower Yuba River Accord Monitoring and Evaluation Program, Draft.	Planning Group of the Lower Yuba River Management Team	--	Relevant; cited in PAD text.	The M&E program was developed to guide the efficient expenditure of funds to evaluate the biological provisions of the Fisheries Agreement of the Yuba Accord. Monitoring and data collection activities implements via the M&E program will produce a data base for Yuba River Development Project.	<a href="http://www.yubaaccordrmt.com/M%20%20E%20Plan%20and%20Analytics/M%20and%20E%20Plan%20June%202009.pdf">http://www.yubaaccordrmt.com/M%20%20E%20Plan%20and%20Analytics/M%20and%20E%20Plan%20June%202009.pdf</a>
Geology and Soils	Yuba County	1993	Draft Environmental Impact Report for River Highlands Community Plan, section 4.11 Soils, Seismicity, and Geology.	--	--	--		
Geology and Soils	Yuba County Water Agency	2002	Initial Study and Proposed Mitigated Negative Declaration Feasibility of Tailwater Depression at New Colgate Powerhouse. An Element of the Yuba-Feather Supplemental Flood Control Project. Prepared by EDAW and Flood Control Study Team. September 2002.	--	SYRCL PAD Questionnaire Response July 17, 2009; FWN PAD Questionnaire July 27, 2009	--	In addition to information on the operation and construction of Colgate, the study has tables of powerhouse, releases, storage and stage at New Bullards Bar and river flows at Colgate and below Englebright from 1/17/74 through 1/9/97.	--
Geology and Soils	Yuba County Water Agency	2003	Proposed Negative Declaration for Narrows II Flow Bypass System Project 20050329- 4019(8515506), Prepared for YCWA by EDAW, November 26, 2003.	--	FWN PAD Questionnaire Response July 27, 2009	--	Proposed Negative Declaration for Narrows II Flow Bypass System Project 20050329-4019(8515506), Prepared for YCWA by EDAW, November 26, 2003.	--
Geology and Soils	Yuba County Water Agency	2006	Our House Dam Sediment Removal Project.	FERC Project No. 2246-CA	--	Relevant; cited in PAD text.	Details about sediment removal from Our House Dam.	HDR DTA Bellingham: CD with files
Geology and Soils	Yuba County Water Agency	2007	Draft Environmental Impact Report/Environmental Impact Statement for the Proposed Lower Yuba River Accord.	Prepared for the Department of Water Resources, Bureau of Reclamation and Yuba County Water Agency by HDR SWRI. June 2007.	--	--		
Geology and Soils	Yuba County Water Agency, Department of Water Resources, and Bureau of Reclamation	2007	Final Environmental Impact Report/Environmental Impact Statement for the Proposed Lower Yuba River Accord, October.	Prepared by HDR & Surface Water Resources, Inc	--	Relevant as background; not cited in text.	Document details how Yuba River flow management affects species that occur within the watershed.	<a href="http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=2549">http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=2549</a>
Geology and Soils	Yuba County Water Agency	2009	Preliminary Information Package, Public Information, Hydrology Report. Yuba River Development Project, FERC Project No. 2246.	YCWA	--	--		
Geology and Soils	Yuba County Water Agency (YCWA)	2009	Yuba River Development Project Relicensing Preliminary Information Package	YCWA	--	Relevant; indeveloped by YCWA and used in PAD.	Existing conditions of Yuba County Development Project	< <a href="http://www.ycwa-relicensing.com/default.aspx">http://www.ycwa-relicensing.com/default.aspx</a> >
Geology and Soils	Yuba County Water Agency.	1998	Narrows II Powerhouse Intake Extension: Proposed Mitigated Negative Declaration and Initial Study. Marysville CA: Yuba County Water Agency. October 1998.	--	FWN PAD Questionnaire Response July 27, 2009	--	--	--

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