



A PDF text file of the project's approved environmental compliance package containing the letter of compliance completion, categorical exclusion form, environmental screening form, and any other associated environmental clearance forms, as applicable (e.g., Wilderness Minimum Requirement Analysis, Wild and Scenic River Section 7 Analysis). The signed originals of the package are on file in the Environmental Planning and Compliance Office at Yosemite National Park.

Letter of Compliance Completion

To: Rachel Hallnan, Project Manager, Yosemite National Park

From: Cicely Muldoon, Superintendent, Yosemite National Park

Subject: NEPA and NHPA Clearance: 2021-076 Tuolumne Meadows Outlet Stream Gauge & Turbidimeter Installation (98519)

The Superintendent and park interdisciplinary team have reviewed the proposed project and completed an impact analysis and documentation, and have determined the following:

- There will not be any effect on threatened, endangered, or rare species and/or their critical habitat.
- There will be no adverse effect to historic properties.
- There will not be serious or long-term undesirable environmental or visual effects.

The subject proposed project, therefore, is now cleared for all NEPA and NHPA compliance requirements as presented above. Project plans and specifications are approved and construction and/or project implementation can commence.

Required Mitigations - For the proposed project actions to be within compliance requirements during construction and/or project implementation, the following mitigations must be adhered to:

- Only project actions described in PEPC 98519 are approved for implementation. Additions or changes to plans must be reviewed and approved by the Yosemite Environmental Planning and Compliance Office. Ground disturbance is NOT AUTHORIZED.
- The project equipment is approved on a temporary basis. The project will undergo additional compliance review and approval if the equipment is proposed to stay beyond summer of 2026.
- The project staff will follow "Leave-No-Trace" principles while working in wilderness. An MRA was not necessary for this project, as determined by the park wilderness manager.
- Project staff will choose travel routes that minimizes trampling in meadow and riparian vegetation, will take care to avoid stepping on rodent burrows (which are important habitat elements for the Yosemite Toad), and will avoid stepping on wet areas in the meadow. Project staff will be trained in the identification of the Yosemite Toad and Sierra Nevada yellow-legged frogs. If either species is observed in or near the work area, work will be temporarily halted and the park Aquatic Ecologist, Rob Grasso, will be contacted and consulted (209-379-1438); work would commence at the direction of the park Aquatic Ecologist. Please report all observations of the species, regardless of if they are in the work area (documenting location, date time, and photos, ideally).
- Project staff must store food and refuse in accordance with park regulations to prevent food conditioning in wildlife, especially bears.

- For the stream gage installation, project staff should comply with all applicable general conditions contained in the U.S. Army Corps of Engineers Nationwide Permit #5 (Scientific Measurement Devices) for the protection of the stream.

Superintendent Signature: _____ Cicely Muldoon

Date: _____ July 14, 2021

The signed original of this document is on file at the Environmental Planning and Compliance Office in Yosemite National Park.



Categorical Exclusion Documentation Form (CE Form)

Project: Tuolumne Meadows Outlet Stream Gauge & Turbidimeter Installation

PEPC Project Number: 98519

Description of Action (Project Description):

This project will install a temporary water quality sonde at the outlet of Tuolumne Meadows to measure turbidity. It is part of the larger Restore Tuolumne Riverbanks project which includes investigations and restoration actions to assess and address development impacts and visitor use on the Tuolumne Meadows system. The installation will add an Aqua TROLL 600 multiparameter sonde with a turbidimeter probe to complement the existing turbidimeter at the Tioga Road gage to identify and isolate any turbidity sourced from within the meadow system. It will also measure temperature and conductivity. The sonde will be deployed on the river bottom and anchored to a boulder in the location of an existing stage logger. The sonde will not be visible from the riverbank. No ground disturbance is required to install the sonde; it will be affixed to a rock that will sit in the river.

The site is located in designated wilderness. The installation would be installed onsite for five years. The sonde would be installed in July 2021. The Site will be visited approximately every 6-months to download the data and replace batteries.

Justification: This project would aid understanding of water quality impacts on the Tuolumne River. These include those outlined in the Tuolumne River Plan such as river widening, failure of riparian willow recruitment, extensive areas of bare soil, head cuts in the river, and incision of the meadow surface. Many of these are suspected to be a direct result from human related impacts like social trails, old roads, and drainage features. These features result in large amounts of meadow soil deposition into the river, typically impacting water quality parameters including turbidity. This project would quantify these impacts with the purpose of protecting water quality, and assist in identifying necessary meadow hydrology restoration.

Additionally, roadwork on the Tioga Road along the Tuolumne Meadow corridor will commence during summer 2021 and continue through 2022, and will include new parking areas, closure and restoration of old parking areas, and updates to the road drainage infrastructure. This work will include the use of heavy machinery along the road corridor for tree cutting, excavating, paving, and alteration to culvert size and location. Installation of a turbidimeter will help monitor impacts of this construction on sediment and contaminant contributions to the Tuolumne River.

Mitigations: See Categorical Exclusion Form (page 1)

CE Citation: E.5 Nondestructive data collection, inventory (including field, aerial, and satellite surveying and mapping), study, research, and monitoring activities.

Decision: I find that the action fits within the categorical exclusion above. Therefore, I am categorically excluding the described project from further NEPA analysis. No extraordinary circumstances apply.

Superintendent Signature: _____ **Cicely Muldoon** **Date:** _____ **July 14, 2021**

Extraordinary Circumstances:

If implemented, would the proposal...	Yes/No	Notes
A. Have significant impacts on public health or safety?	No	None
B. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas?	No	None
C. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E))?	No	None
D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?	No	None
E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?	No	None
G. Have significant impacts on properties listed or eligible for listing on the National Register of Historic Places, as determined by either the bureau or office?	No	None
H. Have significant impacts on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species?	No	None
I. Violate a federal, state, local or tribal law or requirement imposed for the protection of the environment?	No	None
J. Have a disproportionately high and adverse effect on low income or minority populations (EO 12898)?	No	None
K. Limit access to and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 130007)?	No	None
L. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112)?	No	None



ENVIRONMENTAL SCREENING FORM (ESF)

Updated Sept 2015 per NPS NEPA Handbook

A. PROJECT INFORMATION

Project Title: Tuolumne Meadows Outlet Stream Gauge & Turbidimeter Installation

PEPC Project Number: 98519

Project Type: Resource Management (RM)

Project Location:

County, State: Tuolumne, CA

Project Leader: Rachel Hallnan

B. PROJECT DESCRIPTION:

See Categorical Exclusion Form (page 2)

C. RESOURCE IMPACTS TO CONSIDER:

Resource	Potential for Impact	Potential Issues & Impacts
Air Air Quality	None	None
Biological Nonnative or Exotic Species	None	None
Biological Species of Special Concern or Their Habitat <i>Yosemite toad, Sierra Nevada yellow-legged frog, Yosemite toad Critical Habitat</i>	Potential	Issue: [REDACTED] Impact: No effect is anticipated to either species and their Critical Habitat, as the work upgrades stream gauge equipment currently at the site.
Biological Vegetation	None	None
Biological Wildlife and/or Wildlife Habitat including terrestrial and aquatic species <i>Wildlife behavior</i>	Potential	Issue: Human foods and refuse must be stored properly to avoid food conditioning in wildlife, especially bears. Impact: The project staff will follow food storage regulations to prevent food conditioning in wildlife.
Cultural Archeological Resources <i>Archeological Resources</i>	None	None
Cultural Cultural Landscapes	None	None

Resource	Potential for Impact	Potential Issues & Impacts
Cultural Ethnographic Resources <i>Ethnographic Resources</i>	Potential	Issue: Project involves equipment in the Tuolumne River, a resource important to the traditionally associated American Indian tribes. Impact: The project was included on the May 2020 Tribal Spreadsheet for review by traditionally associated American Indian tribes. No comments from tribes were received.
Cultural Museum Collections	None	None
Cultural Prehistoric/historic structures	None	None
Geological Geologic Features	None	None
Geological Geologic Processes	None	None
Lightscares	None	None
Other Human Health and Safety	None	None
Other Operational	None	None
Other	None	None
Socioeconomic Land Use	None	None
Socioeconomic Minority and low-income populations, size, migration patterns, etc.	None	None
Socioeconomic	None	None
Soundscapes	None	None
Viewsheds	None	None
Visitor Use and Experience Recreation Resources	None	None
Visitor Use and Experience	None	None
Water Floodplains	None	None
Water Marine or Estuarine Resources	None	None
Water Water Quality or Quantity <i>Water Quality</i>	Potential	Issue: Project instrumentation will be used to measure water quality. Impact: Project will improve the park's ability to monitor water quality in relationship to nearby construction/restoration projects.
Water Wetlands <i>Clean Water Act Permitting</i>	Potential	Issue: The project involves waters of the US. Impact: Park staff have determined that the stream gage installation is covered by the U.S. Army Corps of Engineers Nationwide 404 Permit #5.

Resource	Potential for Impact	Potential Issues & Impacts
Water Wild and Scenic River	None	None
Wilderness Wilderness	Potential	Issue: Project is located in designated wilderness area. Impact: The project does not need an MRA at the direction of the park Wilderness Specialist. The crew will follow Leave-No-Trace principles.



ASSESSMENT OF ACTIONS HAVING AN EFFECT ON HISTORIC PROPERTIES

A. DESCRIPTION OF UNDERTAKING

1. **Park:** Yosemite National Park

2. **Project Description:**

Project Name: Tuolumne Meadows Outlet Stream Gauge & Turbidimeter Installation

Prepared by: Ninette Daniele **Date Prepared:** 05/11/2021

Telephone: (209) 379-1457

PEPC Project Number: 98519

Locations:

County, State: Tuolumne, CA

Describe project: See CE Form (page 2)

Area of potential effects (as defined in 36 CFR 800.16[d])

The APE includes the Tuolumne River in wilderness in Tuolumne Meadows. There is no ground disturbance for this project. A sonde sensor would be placed into the river and anchored within a removeable rock/boulder for up to 5 years.

3. **Has the area of potential effects been surveyed to identify historic properties?** Yes

4. **Potentially Affected Resource(s):**

Archeological Resources Present: Yes

Property Name: Tuolumne Meadow Archeological District LCS:

Archeological Resources Notes: The project area has been archeologically surveyed in 1976 and 2006. It is within the boundaries of the Tuolumne Meadows Archeological District but no sites have been identified.

Historical Structures/Resources Present: No

Cultural Landscapes Present: No

Ethnographic Resources Present: Yes

Ethnographic Resources Notes: The Tuolumne River has been identified as a very important cultural resource during previous consultations with tribal partners. The project was included on the May 2021 tribal spreadsheet distributed to traditionally associated American Indian tribes for their review and comment.

5. **The proposed action will:** (check as many as apply)

Yes/No	The proposed action will:
No	Destroy, remove, or alter features/elements from a historic structure
No	Replace historic features/elements in kind
No	Add non-historic features/elements to a historic structure
No	Alter or remove features/elements of a historic setting or environment (inc. terrain)

Yes/No	The proposed action will:
No	Add non-historic features/elements (inc. visual, audible, or atmospheric) to a historic setting or cultural landscape
No	Disturb, destroy, or make archeological resources inaccessible
No	Disturb, destroy, or make ethnographic resources inaccessible>
Yes	Potentially affect presently unidentified cultural resources
No	Begin or contribute to deterioration of historic features, terrain, setting, landscape elements, or archeological or ethnographic resources
No	Involve a real property transaction (exchange, sale, or lease of land or structures)
No	Other (please specify):

6. Supporting Study Data:

(Attach if feasible; if action is in a plan, EA or EIS, give name and project or page number.)

B. REVIEWS BY CULTURAL RESOURCE SPECIALISTS

The park 106 coordinator requested review by the park's cultural resource specialist/advisors as indicated by check-off boxes or as follows:

[X] 106 Advisor

Name: Hope Schear

Date: 05/27/2021

Comments: Compliance complete. NO HA/HLA required. YOSE PA streamlined review category 7. No comments or concerns received from tribal partners.

Check if project does not involve ground disturbance []

Assessment of Effect: ___No Potential to Cause Effect ___No Historic Properties Affected X No

Adverse Effect ___Adverse Effect ___Streamlined Review

Recommendations for conditions or stipulations:

Doc Method: Park Specific or Other Programmatic Agreement

[X] Anthropologist

Name: Dawn Bringelson

Date: 06/30/2021

Comments: May Tribal spreadsheet comment period has closed; no comments were received.

Check if project does not involve ground disturbance []

Assessment of Effect: ___No Potential to Cause Effect ___No Historic Properties Affected X No

Adverse Effect ___Adverse Effect ___Streamlined Review

Recommendations for conditions or stipulations:

[X] Archeologist

Name: Wesley Wills

Date: 05/11/2021

Comments: The project involves installation of monitoring equipment next to an existing water quality monitor within the Tuolumne River. The surrounding area has been archeologically surveyed in 1976 and 2006. It is within the boundaries of the Tuolumne Meadows Archeological District but no sites have been identified.

Check if project does not involve ground disturbance []

Assessment of Effect: ___No Potential to Cause Effect ___No Historic Properties Affected X No

Adverse Effect ___Adverse Effect ___Streamlined Review

Recommendations for conditions or stipulations:

Doc Method: Park Specific or Other Programmatic Agreement

No Reviews From: Curator, Historical Architect, Historian, Other Advisor, Historical Landscape Architect

C. PARK SECTION 106 COORDINATOR'S REVIEW AND RECOMMENDATIONS

1. Assessment of Effect:

Select with X	Assessment of Effect
n/a	No Potential to Cause Effects
n/a	No Historic Properties Affected
X	No Adverse Effect
n/a	Adverse Effect

2. Documentation Method:

[] A. Standard 36 CFR Part 800 Consultation
Further consultation under 36 CFR Part 800 is needed.

[] B. Streamlined Review Under the 2008 Servicewide Programmatic Agreement (PA)
The above action meets all conditions for a streamlined review under section III of the 2008 Servicewide PA for Section 106 compliance.

Applicable Streamlined Review Criteria
(Specify 1-16 of the list of streamlined review criteria.)

[X] C. Undertaking Related to Park Specific or Another Agreement
The proposed undertaking is covered for Section 106 purposes under another document such as a park, region or statewide agreement established in accord with 36 CFR 800.7 or 36 CFR 800.14.

[] D. Combined NEPA/NHPA Process
Process and documentation required for the preparation of an EA/FONSI or an EIS/ROD to comply with Section 106 is in accord with 36 CFR 800.8.c.

[] E. Memo to Project File

3. Consultation Information

SHPO Required: No

SHPO Sent: N/A

SHPO Received: N/A

THPO Required: Yes

THPO Sent: May 27, 2021

THPO Received: No tribal comments received after 30 days

SHPO/THPO Notes: N/A

Advisory Council Participating: No

Advisory Council Notes:

Additional Consulting Parties: No

4. Stipulations and Conditions:

Following are listed any stipulations or conditions necessary to ensure that the assessment of effect above is consistent with 36 CFR Part 800 criteria of effect or to avoid or reduce potential adverse effects.

5. Mitigations/Treatment Measures:

Measures to prevent or minimize loss or impairment of historic/prehistoric properties: (Remember that setting, location, and use may be relevant.)

Required Mitigations - For the proposed project actions to be within compliance requirements during construction and/or project implementation, the following mitigations must be adhered to:

- Only project actions described in PEPC 98519 are approved for implementation. Additions or changes to plans must be reviewed and approved by the Yosemite Environmental Planning and Compliance Office. Ground disturbance is NOT AUTHORIZED.

6. Assessment of Effect Notes:

2020 YOSE PA (7. Installation of monitoring units)

D. RECOMMENDED BY PARK SECTION 106 COORDINATOR:

106 Coordinator Signature: Hope Schear Date: July 6, 2021

E. SUPERINTENDENT'S APPROVAL

The proposed work conforms to the NPS *Management Policies* and *Cultural Resource Management Guideline*, and I have reviewed and approve the recommendations, stipulations, or conditions noted in Section C of this form.

Superintendent Signature: Cicely Muldoon Date: July 14, 2021



Other Compliance/Consultations Form

Park Name: Yosemite National Park

PEPC Project Number: 98519

Project Title: Tuolumne Meadows Outlet Stream Gauge & Turbidimeter Installation

Project Type: Resource Management

Project Location:

County, State: Tuolumne, CA

Project Leader: Rachel Hallnan

ESA

Any Federal Species in the project Area? Yes

If species in area: No Effect

Was Biological Assessment prepared? No

If Biological Assessment prepared, concurred?

Formal Consultation required? No

Formal Consultation Notes:

Formal Consultation Concluded

Any State listed Species in the Project Area? No

Consultation Information:

General Notes: The project area does not have any recent observations of Yosemite Toads or Sierra Nevada yellow-legged frogs, [REDACTED]

The project is anticipated to have no effect to the species due to no ground disturbance and the non-intrusive method of sonde installation.

Date Entered by: Ninette Daniel

Date: May 27, 2021

ESA Mitigations

Mitigation ID	Text
116386	Project staff will choose travel routes that minimize trampling in meadow and riparian vegetation, will take care to avoid stepping on rodent burrows (which are important habitat elements for the Yosemite Toad), and will avoid stepping on wet areas in the meadow. Project staff will be trained in the identification of the Yosemite Toad and Sierra Nevada yellow-legged frogs. If either species is observed in or near the work area, work will be temporarily halted and the park Aquatic Ecologist, Rob Grasso, will be contacted and consulted (209-379-1438); work would commence at the direction of the park Aquatic Ecologist. Please report all observations of the species, regardless of if they are in the work area (documenting location, date time, and photos, ideally).

Floodplains/Wetlands/§404 Permits

Question	Yes/No	Details
A.1. Is project in 100- or 500-year floodplain or flash flood hazard area?	Yes	Determined to be exempt from compliance with Director's Order #77-2 and no Floodplain Statement of Findings required.
A.2. Is Project in wetlands as defined by NPS/DOI?	Yes	Determined to be exempt from compliance with Director's Order #77-1 and no Wetland Statement of Findings required.
B. COE Section 404 permit needed?	No	Park staff have determined that the stream gage installation is covered by the U.S. Army Corps of Engineers Nationwide 404 Permit #5.
C. State 401 certification?	No	
D. State Section 401 Permit?	No	Issue Date: Expiration Date:
E. Tribal Water Quality Permit?	No	None
F. CZM Consistency determination needed?	N/A	N/A
G. Erosion & Sediment Control Plan Required?	No	None
H. Any other permits required?	No	Permit Information:
Other Information:	No	None

Date Entered by: Ninette Daniel

Date: May 27, 2021

Floodplains & Wetlands Mitigations *No Floodplains & Wetlands mitigations are associated with this project.*

Wilderness

Question	Yes/No	Details
A. Does this project occur in or adjacent to Designated, Recommended, Proposed, Study, Eligible, or Potential Wilderness?	Yes	None
B. Is the only place to conduct this project in wilderness?	Yes	None
C. Is the project necessary for the administration of the area as wilderness?	Yes	None
D. Would the project or any of its alternatives adversely affect (directly or indirectly) Designated, Recommended, Proposed, Study, Eligible, or Potential Wilderness? (If Yes, Minimum Requirements Analysis required)	No	None
E. Does the project or any of its alternatives involve the use of any of the Wilderness Act Section 4(c) prohibited uses: commercial enterprise, permanent road, temporary road, motor vehicles, motorized equipment, motorboats, landing of aircraft, mechanical transport, structure, or installation? (If Yes, Minimum Requirements Analysis required)	No	None
If the answer to D or E above is "Yes" then a Minimum Requirements Analysis is required. Describe the status of this analysis in the column to the right.	N/A	Initiation Date: Completed Date: Approved Date:
Other Information: MRA not required as determined by park Wilderness Specialist.	No	None

Date Entered by: Ninette Daniel

Date: May 27, 2021

Other Permits/Laws *Questions A & B are no longer used.*

Question	Yes/No
C. Wild and scenic river concerns exist?	No
D. National Trails concerns exist?	No
E. Air Quality consult with State needed?	No
F. Consistent with Architectural Barriers, Rehabilitation, and Americans with Disabilities Acts or not Applicable? (If N/A check Yes)	Yes
G. Other:	No

Other Information: N/A

Date Entered by: Ninette Daniel

Date: May 27, 2021