JOSH STEIN
Governor
D. REID WILSON
Secretary
SHADI ESKAF
Director

NORTH CAROLINA
Environmental Quality

MEMORANDUM

To: Kadisha Molyneaux
State Environmental Review Clearinghouse
Department of Administration

From: Kavitha Ambikadevi, PE ka
Section Chief
Water Infrastructure Fund Section

Date: March 24, 2025

Subject: Amendment to FONSI for Town of Bryson City
Wastewater Treatment Plant Improvements ER/EID Amendment No.1
CWSRF Project No. CS370845-03
ARPA Project No. SRP-W-ARP-0150
SCH File # 25-E-0000-0041

The purpose of this memorandum is to amend the Finding of No Significant Impact/Environmental Assessment (FONSI/EA) for the Town of Bryson City's Wastewater Treatment Plant Improvements Project (State Clearinghouse Number 25-E-0000-0041). As the Lead Agency, the Division of Water Infrastructure requests that the State Environmental Review Clearinghouse post this document for 30 days as an informational update for interested parties. Information regarding the proposed amendment to the FONSI/EA is discussed below.

The original FONSI/EA included a review of five alternatives, two of which were deemed feasible for achieving the project goals (Alternative No. 3 and No. 5), with Alternative No. 3 being selected as the preferred alternative. Alternative No. 3 included installation of an oxidation ditch for biological treatment, as well as a chlorine contact basin and system for disinfection.

Due to the significant increases in the cost of concrete and following an archaeological survey, a significant portion of the existing site has now been removed from the available space. An archaeological survey was initiated by the current property owner which indicated that a portion of the Alternative 3 project area may impact archaeological resources. The revised project plans now indicate this archaeological area as a' Non-Encroachment Area'. This area will be delineated in the field and clearly marked. Any changes to the limits of disturbance during construction will be approved prior to the initiation of those activities. Alternative 5 was chosen as the most viable replacement option since the design and treatment improvements require a much smaller footprint. Alternative 5 will avoid ground disturbing activities within the surveyed archaeological area, and it was determined that Alternative No. 5 is more feasible and the preferred option.

Alternative No. 5. proposes utilizing a sequencing batch reactor (SBR) treatment process as well as a UV disinfection system. It should be noted that this alternative was a possible recommendation during the original environmental review, but at the time was not feasible option.

Sequencing Batch Reactor and Alkalinity Stabilization for Class A Sludge

This alternative includes the following improvements:
Installation of a complete headworks process, including screening, screenings washer compactor,
Construction of a new influent pumping station
Construction of a new four (4) basin continuous flow sequencing batch reactor (SBR) activated sludge secondary treatment system
Ultraviolet (UV) disinfection system
Rehabilitation and conversion of two existing contact stabilization units to aerated sludge holding tanks
Rehabilitation of the sludge dewatering facility and covered sludge storage structure for chemical feed improvements and storage of finished Class A biosolids product
Construction of new belt filter press / alkaline stabilization equipment
Construction of an alkaline sludge stabilization process capable of producing Class A biosolids
Replacement of the existing emergency generator with a new 300 kW emergency generator

Environmental Impacts and Mitigative Measures

Some environmental impacts from the proposed project are expected during the construction. These impacts are not anticipated to significantly contribute to any environmental concerns, however. The completion of the project will positively impact the area as a result of reduction in pollutants in the discharge to the Tuckaseigee River, thereby improving water quality. Cumulative effects are generally triggered when a natural resource is affected by direct and secondary effects in conjunction with other projects in the study area. Determination of cumulative effects can be evaluated using the following techniques: modeling cause and effect relationships; trends or changes in a natural resource over time; geographic overlay of project footprint with mapped natural resources.

While the primary purpose of the proposed project is to replace aging, failing, and undersized treatment equipment, which is unable to treat the existing wastewater demands, the WWTP expansion has been designed to accommodate future development as well. Secondary and cumulative impacts may result from such development. Impacts may include temporary land disturbance within 100- year floodplain, impacts to soils and hydrology, sedimentation of aquatic resources, alteration of land use, increases in noise levels and air pollution, impacts to archaeological or historic resources, the loss of natural vegetation and habitats, disruption of established wildlife territories and migration patterns, habitat fragmentation, and loss of biological diversity.

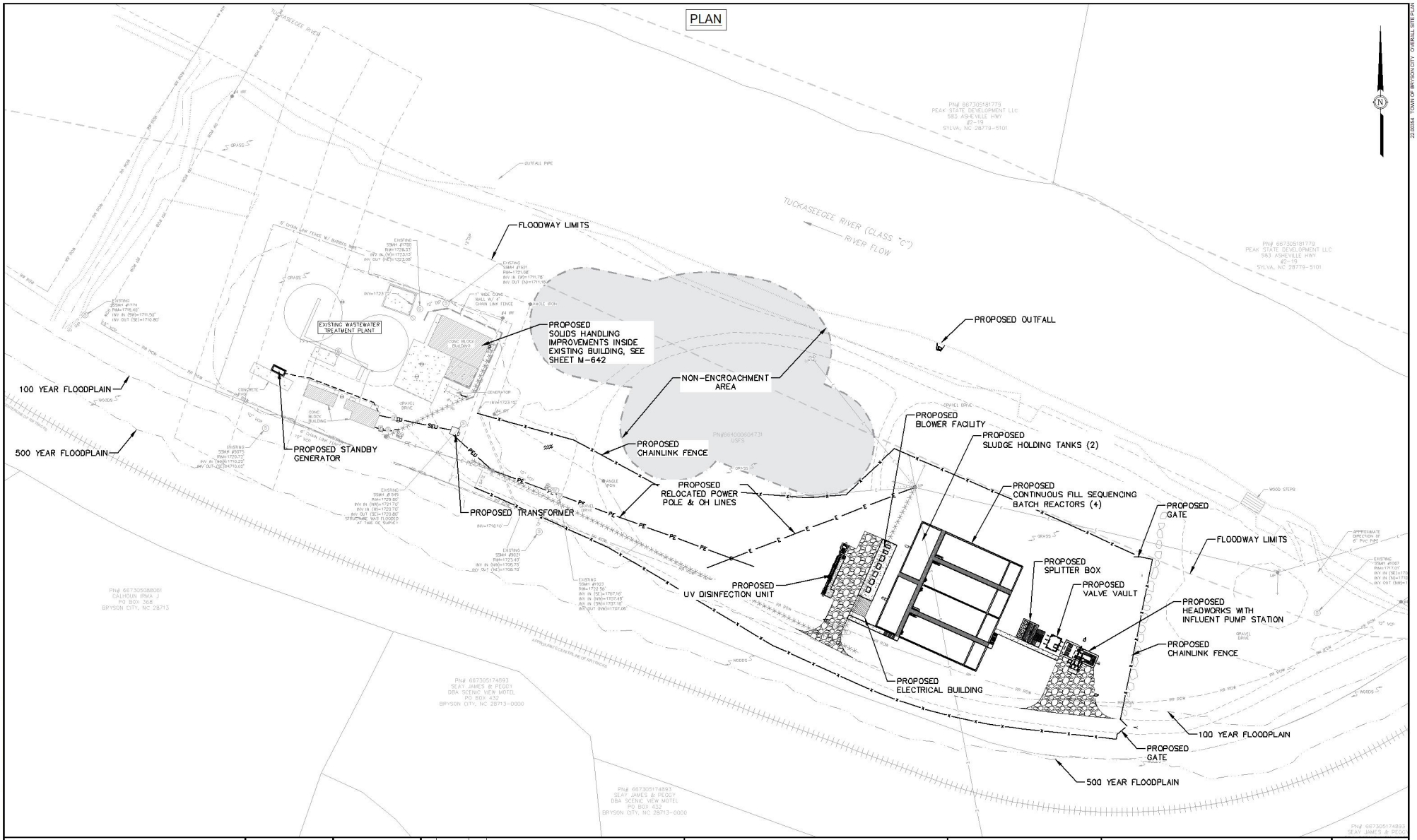
Mitigative measures will include restoring construction areas to pre-project conditions, implementing erosion and sediment control measures, minimizing clearing to only what is necessary, dust control measures as needed, limiting construction to daytime working areas, utilizing mufflers and emission controls on construction equipment.

The analysis of the original proposed project included extensive review of secondary and cumulative impacts (SCI) and approval of a SCI document as part of the original Engineering Report/Environmental Information document review.

Conclusion

The review process indicated that the sequencing batch reactor treatment process along with the UV disinfection system reduce the overall environmental impact of this project. With the mitigation measures in place, significant adverse environmental impacts should not occur, and an environmental impact statement will not be required. The Finding of No Significant Impact is still valid.

PLAN



mcgill®
55 Broad Street
Asheville, NC 28801
828.252.0575
NC Firm License # C-0459
mcgillassociates.com

PRELIMINARY

FINAL DRAWING FOR REVIEW PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

NO.	DATE	BY	DESCRIPTION

WASTEWATER TREATMENT PLANT IMPROVEMENTS

TOWN OF BRYSON CITY

SWAIN COUNTY, NORTH CAROLINA

GRAPHIC SCALE 40 0 20 40 80 — DIVISION VALUE = 40 FEET

OVERALL SITE PLAN

OFFICE MANAGER	DESIGNER			
M. CATHEY	N. SAWYER			
PROJECT MANAGER	REVIEWER	DATE	PROJECT #	FUNDING #
T. SWARTOUT	---	DECEMBER 2024	22.00354	SRP-W-ARP-0150

SHEET C-104

P:\2022\22.00354-ARP\CIVIL\WWTP IMPROVEMENTS\DRAWINGS\SHEETS\22.00354_SITE.DWG PLOT DATE: 12/6/2024 11:39 AM NATHAN SAWYER

22.00354 TOWN OF BRYSON CITY - OVERALL SITE PLAN