Resolution Copper Project and Land Exchange Environmental Impact Statement

USDA Forest Service Tonto National Forest Arizona

Revised December 17, 2018 Revised February 22, 2017 Original December 22, 2016

Process Memorandum to File

Key Personnel Selection for Resolution Copper Project and Land Exchange Environmental Impact Statement

Purpose of Process Memorandum

The purpose of this process memorandum is to provide a summary of key personnel who are involved in one or more aspects of Resolution Copper Project and Land Exchange Environmental Impact Statement (EIS) completion. As of December 2016, this memorandum provides a summary of qualified staff currently working on the project. Qualified staff refers to resource specialists in various fields contributing to the Resolution Copper Project and Land Exchange EIS. This process memorandum covers one general topic:

• Overview of key participants, their qualifications, and project role

Project Team

The three major entities participating in the Resolution Copper Project and Land Exchange EIS are:

- Lead Federal Agency: U.S. Forest Service (Forest Service), Tonto National Forest
- Third-Party Consultant: SWCA Environmental Consultants (SWCA) and subcontractors
- **Proponent:** Resolution Copper Mining, LLC (Resolution Copper)

Project Background

Resolution Copper has prepared and filed with the U.S. Forest Service (Forest Service) a General Plan of Operations for development and operation of the portions of the project that will be conducted on National Forest System lands open to mineral entry pursuant to Forest Service regulations at 36 Code of Federal Regulations (CFR) Part 228 Subpart A. Consideration of the Resolution Copper General Plan of Operations is a major federal undertaking, pursuant to compliance with the National Environmental Policy Act (NEPA); as such, the Forest Service, in cooperation with Resolution Copper, has requested the assistance of a third-party consultant to prepare an EIS for the project. The EIS will also evaluate environmental impacts of the land exchange authorized and directed by Section 3003 of the Carl Levin and Howard P. 'Buck' McKeon National Defense Authorization Act for Fiscal Year 2015.

The Forest Service has selected a third-party contractor, SWCA, to be an independent NEPA consultant team working at the guidance of the Forest Service to strengthen the environmental analysis and supplement the expertise of the Forest Service resource specialists. SWCA was chosen over other firms during a competitive bid process. SWCA is the prime contractor and, for the most robust possible analysis, is partnering with subcontractors who are experts in their respective fields. Resumes are included in Appendix A. The personnel working on this project include members from:

- Forest Service
- SWCA
- BBC Research and Consulting
- BGC Engineering, Inc.
- DOWL
- Geochemical Solutions, LLC

- HydroGeo, Inc.
- NCL
- Resource Development Inc.
- SLR
- The Rozelle Group

Environmental Impact Statement Participants

The Forest Service

The Forest Service interdisciplinary (ID) team of specialists will serve an important role in the project. Although project documents will be prepared by SWCA, the Forest Service must "furnish guidance and participate in the preparation and shall independently evaluate the statement prior to its approval and take responsibility for its scope and contents" (40 CFR 1506.5). Staff resource specialists' engagement and involvement in the project is critical to the project's success. Below is a list of Forest Service key personnel, their project role, and qualifications.

Table 1. Forest Service Qualified Staff List

Name	Project Role	Qualifications and Education	Years of Experience	
Neil Bosworth	Forest Supervisor	M.S., Fire Ecology	25	
Tom Torres	Deputy Forest Supervisor	M.S., Management	22	
Mark Nelson	Project Manager	Ph.D., Natural Resources and Science Management;		
Mary Rasmussen	ID Team Leader; Apache Leap Special M.S., Forest Resources, emphasis in Ecology;		32	
John Scaggs	Resolution Public Affairs Specialist	B.A., Mass Communications	35	
Carrie Templin	Forest Public Affairs Office	B.S., Natural Resource Recreation	28	
Rebecca Hoffman	Land Exchange Task Manager / ID Team Lands Specialist	B.A., Wildlife	19	
Nanebah Nez	Tribal Relations Program Manager	M.A., Anthropology	10	
Alex Mankin	Globe Ranger District Geologist	M.S., Geology;	6	
Mark Taylor	Forest Minerals Biologist / ID Team Biological Resources Specialist	BS., Wildlife Management	22	
Kimber Jones	Forest Landscape Architect / ID Team Visual Resources Specialist	B.S., Landscape Architecture; Registered Landscape Architect	33	

Table 1. Forest Service Qualified Staff List (Continued)

Name	Project Role	Qualifications and Education	Years of Experience	
Kristina Hill	Forest Archaeologist / ID Team Cultural Resources Specialist	M.A., Anthropology		
Allison Borchers	ID Team Socioeconomic / Environmental Justice Specialist	Ph.D., Economics	8	
Chandler Mundy	ID Team Range Specialist	B.S., Rangeland Resources	14	
Chris Crawford	Forest Engineer / ID Team Transportation, Engineering, and Noise Specialist	B.S., Civil Engineering	26	
Clarence Coffey	ID Team Public Health & Safety Specialist	Occupational Safety and Health Professional; U.S. Environmental Protection Agency Certified Lead Renovator		
David Bailey	ID Team GIS Specialist	B.S., General Studies	22	
Greg Olson	ID Team Hydrologist	logist B.S., Environmental Earth Science		
Jack Marvin	ID Team Fire Management Specialist	Resume requested but not yet received		
Peter Werner	ID Team Mining Engineering Specialist	M.S., Mining Engineering;	32	
Ron Sherron	ID Team Air Quality Specialist	Ph.D., Urban Forestry;		
Ryan Nicholas	ID Team Soil / Reclamation Specialist	Ph.D., Urban Forestry;	14	

SWCA Environmental Consultants

SWCA and all subcontractors shall prepare an EIS that will meet applicable legal, regulatory, and policy requirements, and that is designed to withstand challenge in objections, administrative review, or litigation. SWCA and any subcontractors, as documented in their respective written contracts and consistent with the applicable legal requirements, shall do the following:

- Validate and use existing best available scientific information, inventories, studies, and reports to support the analysis to the fullest extent possible;
- Accept and use environmental data submitted by Resolution Copper, SWCA, subcontractors
 working for Resolution Copper, and other parties, provided that such data can be
 appropriately validated, are accurate as required under 40 CFR 1506.5(a) and (c), and are
 deemed suitable to support the analysis by the Forest Service; and
- If directed by the Forest Service, obtain additional environmental data, but only after approval by Resolution Copper.

Subcontractors

BBC Research and Consulting

BBC Research and Consulting provides consultant services for economic, market, and policy research. BBC conducts custom research, designing each assignment to specifically meet client needs.

BGC Engineering, Inc.

BGC Engineering, Inc. is an international consulting firm that provides professional services in applied earth sciences. The practice was established in 1990, based on a specialized appreciation of the impacts of geology on engineered structures.

DOWL

DOWL is a multi-disciplined consulting firm owned that has provided civil engineering and related services for more than 50 years. DOWL maintains in-house expertise in environmental and land development, water/water resources, transportation, civil engineering, and geo-construction.

Geochemical Solutions, LLC

Geochemical Solutions, LLC, is a privately held consulting practice promoting the application of geochemistry to resolve environmental, forensic, and engineering challenges. Geochemistry is the study of the distribution and movement of elements in earth, sea, sky, and water. Geochemical Solutions, LLC, uses the understanding, principles, and approaches of geochemistry to improve the position of its clients through the development of practical solutions based on solid scientific concepts.

HydroGeo, Inc.

HydroGeo, Inc., offers a full range of professional consulting services in ground and surface water hydrology for domestic and international projects. The HydroGeo, Inc., team of professionals consists of individuals with a wide range of practical expertise in the fields of hydrology, hydraulics, hydrogeology, geochemistry, geology, civil engineering, and botany.

Resource Development Inc.

Resource Development Inc.'s blend of diversified experience and education has created various niches, i.e., plant auditing, diagnostic leaching of refractory gold and copper ores, innovative methods for mine/waste water treatment, and design of mineral processing/analytical laboratories. Resource Development Inc. provides cost-effective solutions by prescribing a systematic approach to project management through effective use of professional and technical staff, state-of-the-art laboratory facilities, and a network of associates.

The Rozelle Group

The Rozelle Group has assisted governments and utility companies to locate facilities opposed by local communities, streamline complex decision processes, and incorporate public opinion into public policy. The Rozelle Group designs, facilitates, and implements successful public participation and communication processes.

 Table 2. Key Personnel from SWCA Environmental Consultants and Subcontractors

Company	Name	Project Role	Qualifications and Education	Years of Experience
SWCA	Chris Garrett	Project Manager	B.S., Hydrology; P.HGW.	23
SWCA	Charles Coyle	Assistant Project Manager	M.A., English;	25
SWCA	Ken Houser	Principal-in-Charge	M.A., Geology; PG	33
SWCA	Terry Chute	Senior Agency NEPA Expertise	A.S., Forest Technology	36
SWCA	Chris Horyza	Senior Agency NEPA Expertise	B.S., Forestry and Range Management, minor in Agriculture	37
SWCA	Donna Morey	Project Administration / Controller	B.S., Urban Planning	10
SWCA	Jill Grams	Public Involvement Specialist / Scenic and Visual Resources Specialist	M.L.A., Landscape Architecture emphasis in Environmental Planning;	19
SWCA	Suzanne Griset	Section 106 / Tribal Consultation, Culture and Heritage Resources Specialist	Ph.D., Anthropology, emphasis in North American Archaeology;	38
SWCA	Adrienne Tremblay	Cultural and Heritage Resources Specialist	Ph.D., Anthropology;	12
SWCA	Eleanor Gladding	ESA Section 7 / Invasive Species Specialist	M.S., Biology, emphasis in Herpetology;	27
SWCA	Jeff Johnson	Wildlife Specialist	M.S., Plant Biology;	12
SWCA	Jamie Young	Fisheries Specialist	B.S., Biology	17
SWCA	Brad Sohm	Air Quality / Risk Analysis / Climate Change Specialist	B.S., Chemical Engineering, emphasis in Environmental Engineering; P.E.	14
SWCA	DeAnne Rietz	Wetlands / Riparian, Hazardous Materials / Public Health and Safety Specialist	M.S., Watershed Management; CPESC	19
SWCA	Mandy Williams	Soils and Vegetation / Reclamation Specialist	Ph.D., Geoscience;	14
SWCA	Jenny Addy	Livestock Grazing	B.S., Conservation and Restoration Ecology	6
SWCA	Vicky Amato	Fuels and Fire Management	M.S., Forestry, emphasis in Fire Ecology / Habitat Management;	12

Table 2. Key Personnel from SWCA Environmental Consultants and Subcontractors (Continued)

Company	Name	Project Role	Qualifications and Education	Years of Experience
SWCA	Ryan Rausch	Recreation, Wilderness, and Land Use Specialist / Apache Leap Special Management Area Task Leader	M.E.L.P., Environmental Law Policy and Conservation;	13
SWCA	Jonathan Rigg	Hazardous Materials / Public Health and Safety, Socioeconomics / Environmental Justice Specialist	M.A., Russian and Slavic Studies;	10
SWCA/SLR	Bruce Macdonald	Air Quality / Risk Analysis / Climate Change Specialist	Ph.D., Atmospheric Science;	39
SWCA	Scott Woods	GIS Graphics Specialist	B.S., Geography: Environmental Planning and GIS, minor in Landscape Architecture and Urban Planning	25
SWCA	Victoria Boyne	Administrative Record Specialist	B.A., Sociology	9
SWCA	Jennifer Rideout	SharePoint Specialist	B.S., Environmental Studies	9
SWCA	Meggan Dugan	NEPA / GIS Specialist	M.A.S., Geographic Information Systems;	5
SWCA	Heidi Orcutt-Gachiri	Technical Editor	Ph.D., Linguistics and Anthropology;	19
SWCA	Charles Kliche	Mining Processing Specialist	Ph.D., Mining Engineering;	42
SWCA	Steven Rinella	Land Exchange Specialist	Graduate Studies toward Master's Degree in Forestry; B.S., Forestry	35
HydroGeo, Inc.	Joe Frank	Groundwater Hydrology / Modeling Specialist	M.S., Geological Science;	37
HydroGeo, Inc./BGC Engineering Inc.	Gabriele Walser	Groundwater Hydrology / Modeling Specialist	Ph.D., Civil Engineering; Dipl. Ing. (FH), Engineering Physics and Environmental Engineering; E.I.T. Colorado	27
DOWL/BGC Engineering Inc.	Laurie Brandt	Geology / Minerals Specialist	M.S., Remote Sensing; PG; MSHA	20
DOWL	Sarah Nicolai	Transportation / Access Specialist	B.A., Civil Engineering; P.E.	12

Table 2. Key Personnel from SWCA Environmental Consultants and Subcontractors (Continued)

Company	Name	Project Role	Qualifications and Education	Years of Experience
DOWL	Todd Cormier	Transportation / Access Specialist	B.S., Civil Engineering; P.E., PTOE	25
DOWL	Nancy Ashton	Noise Specialist	Professional Development Courses	22
DOWL/BGC Engineering Inc.	Mike Henderson	Reclamation Specialist / Tailings Specialist	M.S., Civil Engineering; P.Eng., P.E.	32
DOWL/BGC Engineering Inc.	Troy Meyer	Geotechnical Specialist / Project Engineer	B.S., Civil Engineering; P.Eng., P.E.	24
DOWL/BGC Engineering Inc.	Diana Cook	Geology Specialist	Ph.D., Geological Engineering; P.E.	12
Geochemical Solutions, LLC	Mark Williamson	Geochemistry Specialist	Ph.D., Geochemistry;	27
The Rozelle Group	Marty Rozelle	Public Involvement Specialist	Ph.D., Community Education;	37
BGC Engineering, Inc.	Hamish Weatherly	Surface Hydrology Specialist	M.Sc., Geological Sciences; P.G.	24
BBC Research and Consulting	Doug Jeavons	Socioeconomics / Environmental Justice Specialist	M.A., Economics;	28
BBC Research and Consulting	Michael Verdone	Socioeconomics / Environmental Justice Specialist	Ph.D., Natural Resource and Environmental Economics;	13
Resource Development Inc.	Deepak Malhotra	Mining Processing Specialist	Ph.D., Mineral Economics;	42
NCL Ltda.	Fernando Fuentes Moccia	Mine Engineering	Civil Mining Engineering	42

Appendix A

Staff Resumes