

**CH2MHILL**

Solutions and Services:

## Washington State Environmental Policy Act (SEPA) Experience



# CH2MHILL

## SEPA Experience

CH2M HILL enables you to meet the world's demand for energy by safely delivering your most challenging programs and complex projects globally and locally. From the Arctic to the desert, on land and on sea, we provide safe and innovative consulting, engineering, procurement, construction, and operations solutions that span the entire energy value chain in all major segments. Our comprehensive portfolio includes the delivery of alternative energy projects, including wind, photovoltaic, solar thermal, biomass power, biofuels, geothermal, hydropower, off-shore wind, and cogeneration systems. With advanced resources and seasoned professionals, our fully integrated project delivery teams will help you achieve your global business, operations, and project objectives.



### CH2M HILL by Numbers

- 64 years in business
- \$6.3 billion revenues in 2009
- 23,500 employees working on more than 13,200 active projects for 4,800 clients in 175 offices worldwide
- No. 1 Environmental Design Firm in Solid Waste, Wastewater Treatment Plants, and Site Assessment and Compliance (Top Design Firms in Environmental, Engineering News Record, 2010)
- No. 5 Design (Top 500 Design Firms, Engineering News Record, 2010)
- No. 1 Program Management Firm (Top 100 Program Management Firms, Engineering News Record, 2010)

Our global staff totals more than 23,500 engineers and scientists in more than 175 locations with extensive experience in site selection, environmental permitting, engineering design, and construction for energy facilities using conventional and renewable generation technologies.

CH2M HILL services in the state of Washington include implementing projects and programs for federal and nonfederal clients in the areas of environmental services, energy, transportation, water/wastewater, and government facilities.

Our professional resources across the U.S. cover every technical discipline necessary to secure

environmental permits for development of new solar power generation—including biological resources, community involvement, cultural resources, geology and geotechnical investigation, land use, noise, socioeconomic and environmental justice, traffic and transportation, visual resources, and wetland and water resources. Given that all of our offices function together as a single business unit, we routinely set up project teams with staff from various offices, as project needs dictate. This approach allows us to bring the best specialty and technical resources together with local experience to provide a highly efficient package of services for our clients.



## Renewable Energy Project Experience

CH2M HILL has delivered essential services to renewable energy clients for decades. We offer professional expertise and resources necessary to plan, engineer, procure, construct, and operate and manage your solar energy projects anywhere in the world. Those services include the following:

### Siting and Permitting Experience

- Biological surveys and habitat assessments
- Avian and bat surveys
- Threatened and endangered (T&E) species surveys
- Botanical and rare plant surveys
- Cultural and archaeological resource surveys
- Traditional cultural property studies
- Acoustical modeling and analysis
- Land use evaluations
- Wetland/waterbody studies
- Historic property investigations
- Aesthetics and viewshed analysis
- Transportation and traffic impact
- Socioeconomic and local tax base effects
- Decommissioning cost estimates

### Project Feasibility and Site Selection

- Market definition
- Technical assessment
- Preliminary economic analysis
- Critical issues and fatal flaw analyses
- Land use investigation
- Transmission and interconnection analysis

### Project Planning and Design

- Permitting and licensing
- Geographic information systems (GIS)
- Visual simulations and analysis
- Noise modeling and analysis
- Geotechnical studies
- Community outreach
- Electrical, structural, and site civil design
- Environmental impact analysis

### Construction Management

- Detailed engineering
- Subcontractor selection
- Project controls and logistics
- Owner's engineering
- Environmental oversight and compliance monitoring

### Operations and Management

- Project delivery
- Cost management
- Schedule management
- Contract maintenance
- Performance monitoring
- Health, safety, environmental, and quality management

## CH2M HILL SEPA Experience

CH2M HILL has extensive experience with SEPA activities and environmental documentation in Washington.

- 44 projects with SEPA activities

### Renewable Energy Permitting and SEPA Document Preparation

CH2M HILL has completed thousands of environmental permitting and licensing projects—from initial environmental critical issues analyses through environmental documentation, permitting, construction monitoring, and environmental inspections. We have successfully completed projects for both public and private sector clients, which enables us to understand the permitting process from both the applicant and regulatory agency perspectives and has led to the development of cost-effective strategies to integrate federal environmental review with state environmental documentation and permitting requirements.

Our environmental engineers, scientists, and planners are experienced in working closely with design teams and recognize the importance of incorporating environmental regulatory considerations into engineering design to optimize the operating envelope for permits and approvals. We organize our permitting efforts to coordinate varied requirements, develop strategies for short-term compliance and long-term trends, and furnish clients up-to-date information on new or pending changes in requirements.

The relationships that CH2M HILL has built with key regulators are critical to expediting the regulatory process. In addition to our relationships with state agencies, CH2M HILL team members have developed excellent working relationships with federal agencies, including the Bureau of Land Management (BLM), U.S. Army Corps of Engineers (USACE), U.S. Forest Service, U.S. Environmental Protection Agency, and U.S. Fish and Wildlife Service.

### Washington SEPA Experience

The Washington State Environmental Policy Act (SEPA) requires state and local agencies to consider the likely environmental consequences of a proposal before approving or denying the proposal. SEPA review in the State of Washington is required for any proposal which involves a government “action,” as defined in the SEPA Rules. CH2M HILL has completed complicated SEPA documentation on behalf of local, county, and state governments. The projects highlighted in the text and table below demonstrate our successful experience in preparing documentation pursuant to SEPA.

Project/Client	Location	SEPA	State or Local Permits/ Certificates	Biological Surveys	Cultural Resource Surveys	Noise/Acoustical Analysis	Visual Analysis	404 Permits	Additional Permits	Other Services
Monroe/Lincoln Connector Permitting City of Spokane	WA	●	●							●
SAWTP Program Management City of Spokane	WA	●	●						●	●
Spokane City Utilities Waikiki Spokane County	WA	●	●						●	●
Zilkha Wind Development Horizon Wind Energy	WA	●	●		●	●	●			●
White Creek Wind Energy Project Last Mile Electric Cooperative	WA	●	●	●	●		●	●	●	●
Post Street U-Ped Bridge Rehab City of Spokane	WA	●					●			●
WA MET Tower CUP/SEPA Iberdrola Renewables, Inc.	WA	●								
Wild Horse Wind Energy Project Horizon Wind Energy	WA	●	●			●	●			●
Kittitas Valley Wind Energy Project Horizon Wind Energy	WA	●	●			●	●			●
Teaway Solar Reserve Project Teaway Solar Reserve, LLC	WA	●	●	●	●		●		●	●
Snake River Wind Energy Project Puget Sound Energy/ RES America Developments	WA					●				●
Tucannon Wind Energy Project RES America Developments	WA						●			
Big Horn I and II Iberdrola Renewables, Inc.	WA	●	●	●	●	●	●	●	●	
Juniper Canyon Wind Power Project Iberdrola Renewables, Inc.	WA	●		●	●	●	●	●	●	●
Hopkins Ridge RES America Developments, Inc.	WA	●	●	●	●			●		
Maiden Springs Wind Energy Project Bonneville Power Administration	WA	●	●	●	●	●	●			●
Stateline Wind Energy Project FPL Energy/NextERA	WA OR	●	●	●	●	●	●	●	●	●



## Representative Project Experience

CH2M HILL has successfully delivered numerous energy projects, from feasibility evaluations, environmental surveys, permitting through design, owner's engineering, and construction monitoring services. CH2M HILL team members have successful permitting experience in nearly every state in the U.S. and have excellent working relationships with the resource and regulatory agencies in each state.

In addition to local agencies, zoning boards, and federal resource agencies, such as the BLM and USACE, our teams have successful experience with state-level environmental documentation and permitting throughout the country. This includes preparation and delivery of expert testimony before various public service commissions and state siting boards, such as the California Energy Commission, Washington Energy Facility Siting Evaluation Council (EFSEC), and the Oregon Energy Facility Siting Council (EFSC). CH2M HILL has extensive experience preparing complex documents to support project review under SEPA for all types of development. The following descriptions showcase both renewable energy and other projects that required an in-depth analysis through the preparation of a SEPA EIS.

### Centralia Wastewater Planning and Design

City of Centralia, WA

CH2M HILL prepared an environmental impact statement (EIS), general sewer plan, wastewater facilities plan, and construction documents for new conveyance and treatment facilities for the City of Centralia. CH2M HILL provided technical input for Centralia's appeal of the original TMDL and NPDES permit issued by the Washington State Department of Ecology. CH2M HILL helped initiate a collaborative negotiation process with the City of Chehalis and Darigold, other dischargers affected by the TMDL, which resulted in a modification of the original TMDL to incorporate flow-based limits. Use of flow-based limits allowed Centralia, Chehalis, and Darigold to meet water quality standards for the Chehalis River at a substantially lower cost. Revision of the TMDL resulted in revision of the NPDES permit requirements.

### Aurora Avenue North Multimodal Corridor Project

City of Shoreline, WA

CH2M HILL assisted with project visioning and route development planning, preliminary design and environmental documentation for a 3-mile stretch of SR 99 (also known as Aurora Avenue North) within the City of Shoreline. CH2M HILL also completed final design and right-of-way acquisition services for the 1-mile portion between 145th and 165th Streets. The CH2M HILL team developed a corridor alignment that uses geometry and other creative measures to minimize impacts on adjoining properties. CH2M HILL prepared the state's first NEPA EA/SEPA EIS document for this project that resulted in a Finding of Non Significant Impacts (FONSI) determination. Through engaging community interaction from preliminary to final design, CH2M HILL helped the city address community concerns. This included public meetings and open houses, fact sheets and newsletters, council presentations, and one-on-one meetings with affected property owners.

## Des Moines Creek Business Park

Port of Seattle, WA

CH2M HILL served as the prime consultant for the preparation of a master plan, environmental documentation (NEPA/SEPA EIS), and preliminary engineering for the Des Moines Creek Business Park (DMCBP), an approximately 90-acre site in the City of Des Moines south of Seattle-Tacoma International Airport. CH2M HILL staff worked directly with City of Des Moines staff and the City Council to develop an acceptable mitigation package, as well as providing interagency coordination with the City of SeaTac, WSDOT, and other stakeholders. This development project will provide a mixture of office, research and development and logistics land uses to support the airport and other services.

## SR 520 Bridge Replacement and HOV Project

WSDOT

CH2M HILL, as a major subconsultant, participated in the public involvement, environmental analysis, and the complex regional study. CH2M HILL provided environmental leadership at the task level for alternatives analysis and an EIS. Specific tasks include transit planning; assessment of feasibility of tunnel options; conceptual cost estimating for the transit components of the alternatives; and structural design to evaluate the feasibility of tubes and tunnels across the lake, as well as conceptual design and cost estimating for other major structures. Now in the second phase of this project, CH2M HILL is leading the functional planning and conceptual engineering on the east side of Lake Washington and is preparing the preliminary environmental impact analyses, as well as analysis of scoping and alternatives for developing the EIS. One additional defining function of this project is the team structure that has developed with the prime and WSDOT and other agencies. By developing a baseline to execute the project against, we have been able to bring members working on the project to a higher level delivery responsiveness and clearer understanding of change management. As many WSDOT staff have had PDS training through the University of Washington TRANSPEED program, the use of the process to plan schedule and track has become much easier.

## Kittitas Valley Wind Project for Zilkha Renewable Energy

Kittitas County, WA

Zilkha Renewable Energy proposed a 100 to 150-wind turbine (up to 250 MW) project on the hills northwest of Ellensburg, Washington. CH2M HILL assisted Zilkha in the preparation of an Application for Site Certification, the first time Washington's Facility Site Evaluation Council (EFSEC) siting process had been used for a wind project. CH2M HILL developed avian, botanical, visual, noise, land use, traffic impacts, visual impacts, geotechnical studies and related studies that support the project's EFSEC application and SEPA EIS. CH2M HILL also assisted in the layout of turbine strings and roads, and is maintaining the project's master mapping and design drawings.

## Milford Wind Corridor Project

First Wind, LLC

CH2M HILL provided permitting and NEPA Environmental Assessment services for a 300 MW wind energy development and 88 miles of 345 kV transmission line within two BLM field offices. This project was the first to receive approval under the BLM's Wind Energy Policy and to tier to the BLM's Programmatic Environmental Impact Statement for wind energy development. We managed the development of the wind energy facility layout, transmission routing and alternatives analysis, and planning and execution of the NEPA process.

Work included developing the plan of development and right-of-way applications; designing and executing cultural and biological field studies; preparing an Environmental Assessment for geotechnical evaluations, mitigation plans, and an extensive Environmental Assessment for the commercial project; 404 permitting; and supporting county permitting. The project was completed and in construction within 18 months.



## Wild Horse Wind Energy Project

Horizon Wind Energy

CH2M HILL assisted Horizon Energy with environmental and engineering studies to produce the ASC for Washington's EFSEC and our staff served as expert witnesses in the EFSEC proceedings. We also worked with Horizon to support the development of a Draft and Final EIS by EFSEC's third-party consultant. As part of the permitting process, a geotechnical study using test pits and drilling was developed to characterize subsurface conditions at proposed quarry locations, evaluate geologic hazards potential in the areas of the proposed turbine strings, and provide basic geotechnical data as a precursor for more detailed foundation drilling. A team of CH2M HILL's environmental and engineering wind project experts completed a comprehensive impact analysis on aesthetic values, noise, land use, traffic and transportation, geology and soils, and socioeconomics.



## Teanaway Solar Reserve Project

Teanaway Solar Reserve, LLC

CH2M HILL was selected to perform an economic impact analysis; prepare a conceptual site design; perform wildlife, botanical, and cultural surveys; prepared a Conditional Use Permit (CUP) for Kittitas County; prepared an expanded SEPA checklist; and prepare compliance plans (dust management, wildlife monitoring, vegetation management, traffic management) for this proposed project to generate up to 75 MW of photovoltaic (PV) solar energy for distribution to utilities and communities seeking to optimize their renewable and sustainable energy sources.

## Juniper Canyon I and II Wind Energy Project

Iberdrola Renewables (IBR), Inc.

CH2M HILL managed a multi-disciplinary, multi-office team in preparation of all portions of an EIS. The report required field studies for wetlands, cultural, and visual resources; coordination with state and local agencies relevant to these resources, in addition to state and local transportation planning departments; preparation of state-required reports for wetland delineation and cultural resource studies; and coordination with other contractors to identify and prepare wildlife, habitat, and transportation information. Noise and wetlands studies have required frequent communication with the client to adjust micro-siting details to ensure compliance with federal, state, and local regulations. Based on county requests, we also modeled potential shadow flicker effects on nearby homes. In addition, we are preparing the National Pollutant Discharge Elimination System (NPDES) permit required for project

construction. CH2M HILL currently is preparing the EIS for Juniper Canyon II.

## White Creek Wind Energy Project

Last Mile Electric Cooperative

CH2M HILL prepared the draft and final CUPs and an Expanded SEPA Checklist for the project. Our work included archeological surveys, wetland and waters delineations, visual impacts analysis and visual simulations, and land use analysis. CH2M HILL also provided a broad range of services as the owner's representative for this \$250-million project, working with multiple stakeholders to meet the financial partner's requirements stemming from their over \$200-million investment. In conjunction with the client, CH2M HILL evaluated the project objectives and conditions, identified factors influencing project execution, and recommended an appropriate delivery strategy. CH2M HILL leveraged this strategy to prepare the bid documents and our program management team managed the bid process. Successful negotiations were completed for the procurement of 87 wind turbine generators for 2007 and 2008 delivery.



## Hopkins Ridge Wind Energy Project

RES America Developments, Inc.

CH2M HILL prepared the draft and final CUPs and expanded SEPA checklist for this 350-MW wind generation project. Studies included botanical and terrestrial T&E animal species surveys, wetland and waters delineations, visual impacts analysis and visual simulations, and land use analysis. We worked with the Washington State Department of Ecology and Washington State Department of Fish and Wildlife.

## Big Horn I and II Wind Energy Projects

IBR (formerly PPM Energy)

IBR permitted a 250-MW wind generation project in south-central Washington (Klickitat County) in 2005. The 69-turbine Big Horn I Wind Project was constructed and is currently in operation. Big Horn II is permitted and proposed for construction. CH2M HILL assisted IBR by siting and designing road access for the projects as well as assisting in the final layout of turbines, substation, and related facilities. CH2M HILL also prepared a Draft and Final CUP and Expanded SEPA Checklist. Studies included avian and bat mortality; botanical and terrestrial T&E animal species surveys; archaeological surveys; soils mapping; visual impacts analysis and visual simulations; land use analysis; and testimony at public meetings and regulatory hearings. Permitting assistance included leading negotiations with the Federal Aviation Administration (FAA), USACE, local land use agencies, and wildlife agencies. Engineering support included maintaining the master site layout and design drawing files; assisting in the turbine final location; and developing drawings for easement agreements with landowners.



## Snake River Wind Energy Project

Puget Sound Energy/RES America Developments, Inc.

CH2M HILL conducted acoustical analysis to support SEPA EIS and conditional use permit application processes for Columbia and Garfield counties. Tasks included support and testimony associated with regulatory meetings, public hearings, and open houses.

## Mercer East Corridor

Seattle DOT

CH2M HILL helped Seattle DOT evaluate and select a preferred alternative for the Mercer East Corridor, managed the NEPA EA process including extensive Section 4(f) analysis, and recently completed the final design of this urban corridor. The multidisciplinary team worked collaboratively with the City to develop a unique and marquee project for creating jobs, promoting livability, sustainability, Complete Streets, and Smart Growth; these features helped Mercer East become one of only two projects in the State to receive a TIGER grant (\$30 million). Throughout the design phases, the CH2M HILL team worked collaboratively with a broad range of stakeholders including Seattle Parks Department, WSDOT/FHWA, public and private utilities, property owners, developers, neighborhood groups, and the Seattle Design Commission to integrate their interests and needs into the project.



## Contact Us

David Stein, P.E.  
CH2M HILL  
155 Grand Avenue, Suite 800  
Oakland, CA 94612 USA  
(510) 587-7787  
(510) 520-6787 (mobile)  
David.Stein@ch2m.com

Jim Reichle, P.E.  
CH2M HILL  
6 Hutton Centre Drive, Suite 700  
Santa Ana, CA 92707 USA  
(714) 435-6159  
(714) 227-3326 (mobile)  
Jim.Reichle@ch2m.com

Erin Toelke  
CH2M HILL  
1295 Northland Drive Suite 200  
Mendota Heights, MN 55120 USA  
(651) 365-8517  
(612) 353-7920 (mobile)  
Erin.Toelke@ch2m.com

Hal Copeland  
CH2M HILL  
9191 South Jamaica Street  
Englewood, CO 90112 USA  
(720) 286-5007  
(303) 881-2619 (mobile)  
Hal.Copeland@ch2m.com

Julie Spapperi  
CH2M HILL  
612 Center Street South  
Vienna, VA 22180  
(703) 255-0214  
(571) 246-2258 (mobile)  
Julie.Spapperi@ch2m.com

Nichole Seidell  
CH2M HILL  
2020 SW 4th Ave, Suite 300  
Portland, OR 97201  
(503) 872-4803  
(503) 329-2543 (mobile)  
Nichole.Seidell@ch2m.com