BONNEVILLE POWER ADMINISTRATION
DEPARTMENT OF ENERGY

The Incorporation of Noxious Weed Practices BPA's, Shultz-Wautoma Powerline Construction Project.

BONNEVILLE
POWER ADMINISTRATION

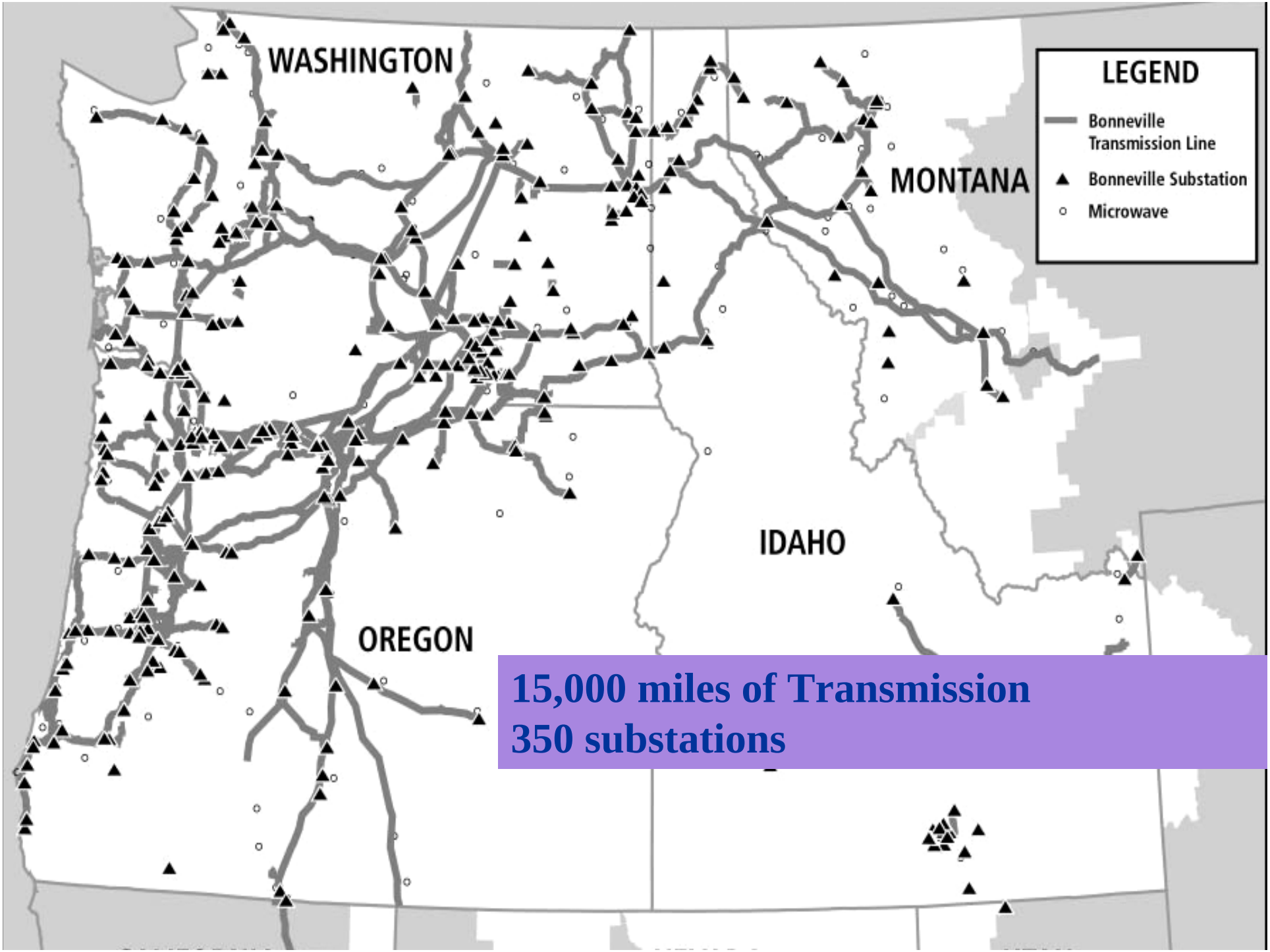
Bill Erickson

Regional Natural Resource Specialist, Walla Walla, WA

Telephone: (509)527-6249

E-Mail: wterickson@bpa.gov

BPA transports electrical power throughout the Pacific Northwest using high voltage transmission lines.


WASHINGTON
MONTANA
IDAHO
OREGON
LEGEND
Bonneville Transmission Line
Bonneville Substation
Microwave
15,000 miles of Transmission
350 substations

Spokesman Review 10/18/84

Jury: U.S. must pay rancher for weed

Spokesman 10-19-84

By BILL MORLIN
Staff writer

An Eastern Washington cattle rancher received a $187,500 jury award in Spokane after contending the federal government was responsible for introducing a noxious weed when it built a power line.

It is believed to be the first time in hundreds of federal land condemnation cases that an award has involved calculating the impact of a weed.

David S. Smith, who operates a 6,200-acre cattle ranch in Okanogan County, contended Bonneville Power Administration introduced diffuse knapweed when it built a 230,000-volt transmission line through his ranch.

The judgment is 12 times greater than the $15,800 the federal government offered Smith and his wife, Jan, for about 61 acres of land.

The BPA obtained a "declaration of taking" in 1981 and erected 22 towers along a 100-foot-wide corridor through the Smiths' cattle ranch six miles northeast of Brewster.

The power line ran from Chief Joseph Dam on the Columbia River to a substation in East Omak. It was installed to add electrical service to the Okanogan Valley.

At the outset of the six-day trial which ended late Monday, the six-member jury inspected the Smith ranch and later heard testimony about how knapweed poses an increasing, permanent problem on rangelands in the West.

Knapweed can be controlled through application of a highly toxic herbicide, Tordon, which can be applied only by licensed applicators.

The Smiths' attorney, Richard Price of Omak, contended that disturbance of the land when the BPA towers were constructed allowed for introduction of the weed.

Witnesses for the Smiths included Edgar Michaelson, an agricultural economist, and Robert Callahan, a weed specialist, both from the University of Idaho.

Ben Roche, an agricultural expert from Washington State University, was called as a government witness.

All three experts agreed knapweed was present on the Smiths' ranch. A large cardboard box full of the dried weed was placed in the courtroom and a sample was introduced as evidence.

The Smith ranch had been free of the weed before the power line construction, Price contended. Knapweed seeds may have been spread by construction vehicles or BPA water trucks used to keep down dust on access roads, he said.

"It is a new argument," Assistant U.S. Attorney Robert Sweeney said Tuesday of the weed-impact issue.

"It is a factual situation or claim that we (the federal government) hadn't encountered before," said the government lawyer who represented the BPA in the civil trial.

An Eastern Washington cattle rancher received a $187,500 jury award in Spokane after contending the federal government was responsible for introducing a noxious weed when it built a power line.

It is believed to be the first time in hundreds of federal land condemnation cases that an award has involved calculating the impact of a weed.

David S. Smith, who operates a 6,200-acre cattle ranch in Okanogan County, contended Bonneville Power Administration introduced diffuse knapweed when it built a 230,000-volt transmission line through his ranch.

The judgment is 12 times greater than the $15,800 the federal government offered Smith and his wife, Jan, for about 61 acres of land.

rangelands in the West.

Knapweed can be controlled through application of a highly toxic herbicide, Tordon, which can be applied only by licensed applicators.

The Smiths' attorney, Richard Price of Omak, contended that disturbance of the land when the BPA towers were constructed allowed for introduction of the weed.

All three experts agreed knapweed was present on the Smiths' ranch. A large cardboard box full of the dried weed was placed in the courtroom and a sample was introduced as evidence.

The Smith ranch had been free of the weed before the power line construction, Price contended. Knapweed seeds may have been spread by construction vehicles or BPA water trucks used to keep down dust on access roads, he said.

CONCLUSION

NOXIOUS WEEDS CAN BE A FINANCIAL LIABILITY TO FEDERAL CONSTRUCTION PROJECTS

OVERVIEW

- BPA WEED POLICY
- BPA Vegetation Management EIS
- Schultz-Wautoma Project
- Weed Mgt. Mitigations

BPA POLICY

- It is BPA's policy to control or contain noxious weeds (undesirable plants) on its fee-owned properties and, when appropriate, on easement areas.
- This is accomplished through cooperation with other Federal, State, county, or local agencies; with property owners and land managers who have established ongoing weed control programs.
- Through BPA's own efforts in situations where weeds could spread from BPA facilities onto surrounding properties.

RESPONSIBILITIES

Pursuant to BPA's efforts to control or contain noxious weeds (undesirable plants), BPA will undertake actions at four stages of a project:

- preconstruction – weed surveys, coordination, and treatment
- construction – training and treatment
- immediate post-construction, and
- maintenance

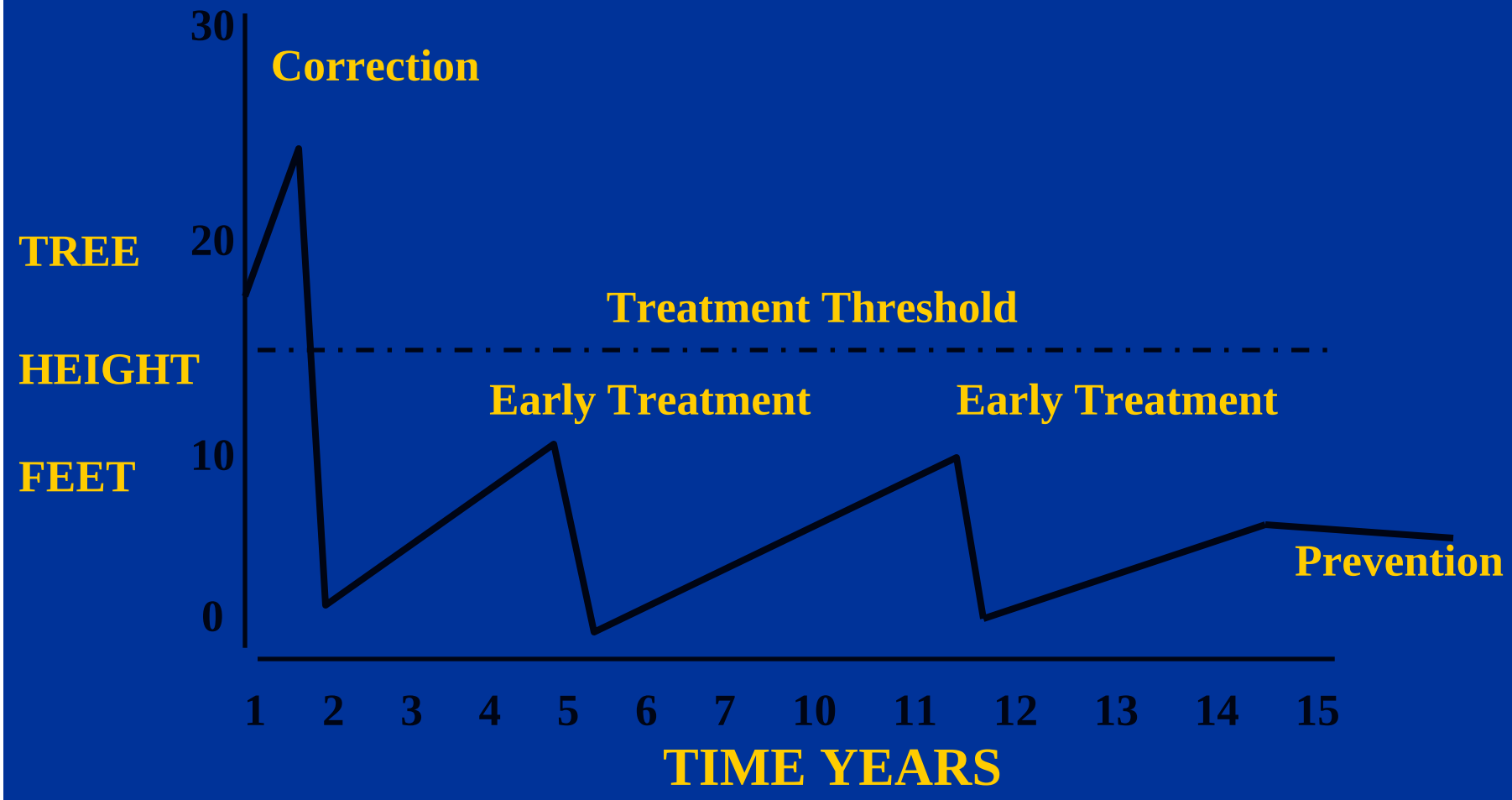
Transmission System Vegetation Management Program Environmental Impact Statement (BPA EIS) May of 2000.

- Develop a strategy and provide a clear path for managers to implement environmental analysis when developing powerline vegetation management programs on rights-of-way that cross all lands in BPA's Pacific Northwest service area.
  - To implement strategies, practices, and methods to managed vegetation and specifically noxious weeds on transmission line right-of-ways.

Decisions

- Approach-Promotion of Low Growing Plant Communities- IVM(Environmentally Preferred)
- Methods- all Manual, Mechanical, Biological, Herbicide including aerial
- Vegetation- Any Vegetation
- Implementation using specific planning steps for Projects

BPA Management Strategy

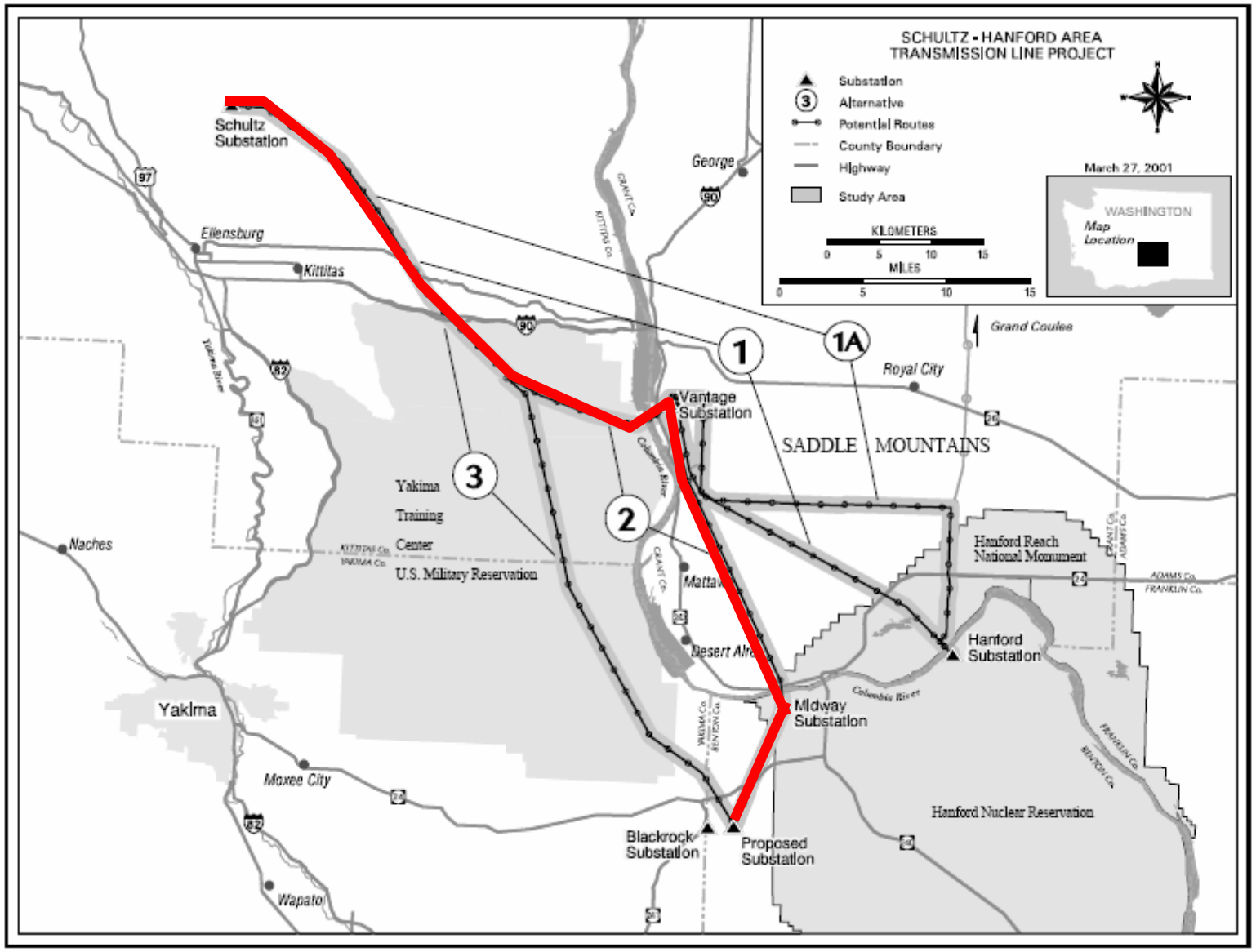


Prevention Strategy

- Preferred Strategy
- Recognize What Causes Weeds
- Understand Life Cycles
- Encourage Competition
- Maintain Favored Species
- Coincide With Natural Processes

November 9, 2000

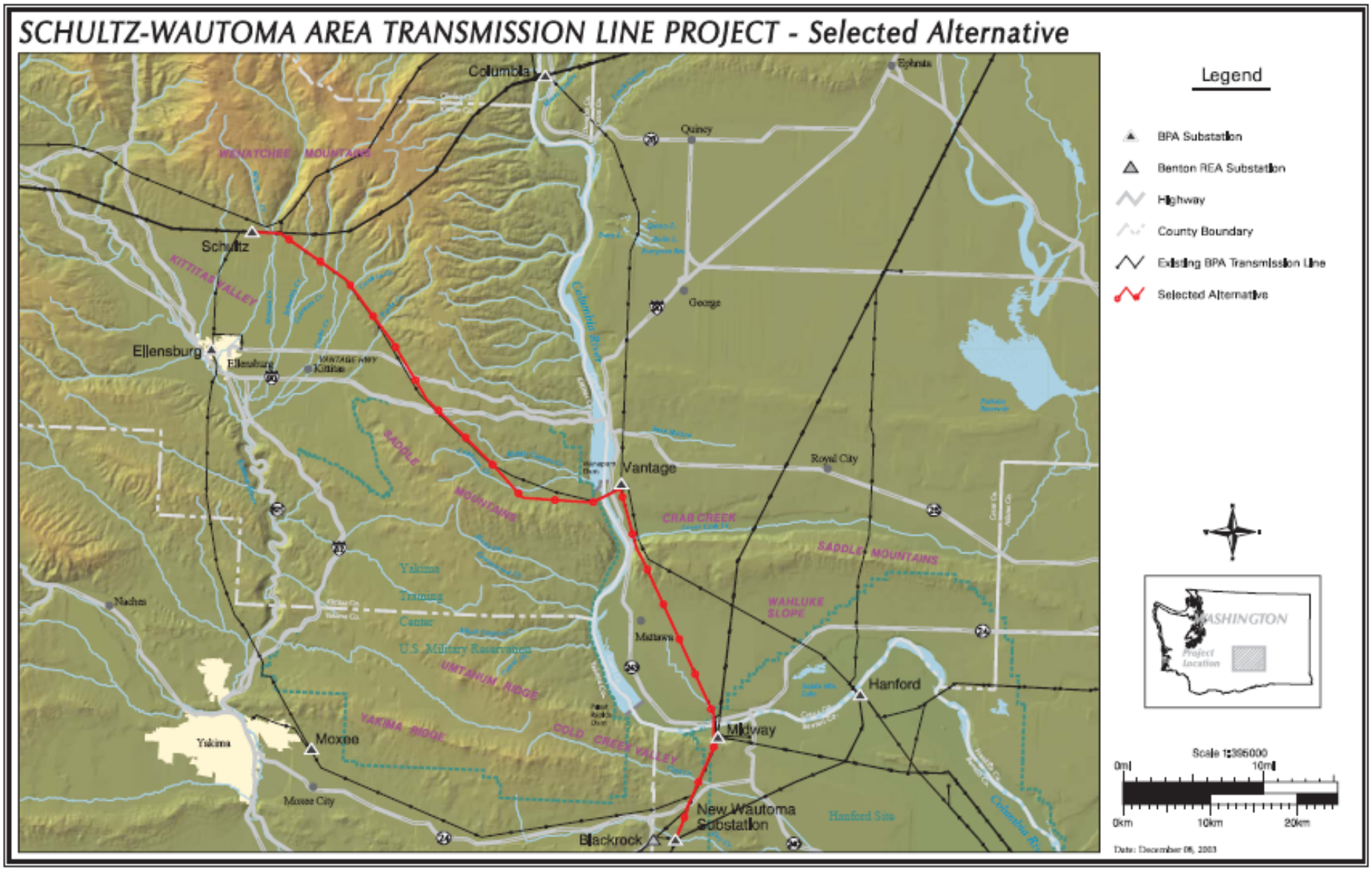
BPA announced its intention of building a 63-mile-long, 500 (kV) transmission line in central Washington State from the Schultz substation north of Ellensburg in Kittitas County to the new planned Wautoma substation facility southwest of the Vernita Bridge in Benton County


SCHULTZ - HANFORD AREA
TRANSMISSION LINE PROJECT
Substation
Alternative
Potential Routes
County Boundary
Highway
Study Area
KILOMETERS
0 5 10 15
MILES
0 5 10 15
March 27, 2001
WASHINGTON
Map Location
Schultz Substation
George
Ellensburg
Kittitas
Grand Coulee
Royal City
Vantage Substation
SADDLE MOUNTAINS
1
1A
2
3
Yakima Training Center U.S. Military Reservation
Naches
Yakima
Maxee City
Wapato
Hanford Reach National Monument
Hanford Substation
Midway Substation
Hanford Nuclear Reservation
Blackrock Substation
Proposed Substation
Columbia River
Yakima Co.
Benton Co.
Franklin Co.
Grant Co.
Adams Co.

Project Overview:

The Schultz-Wautoma Transmission Project

- 63 miles long, adding 600 megawatts of capacity to the grid in central Washington.
- Would reduce curtailments as well as integrate new generators in the northern part of the Northwest transmission system.



This map shows the route for the new 500-kV transmission line.

NEPA Scoping and Planning process

Early in the EIS scoping and planning process, the issue of evasive species or noxious weeds and the protection of the shrub-steppe landscape became a concern to many landowners and commenters on the project.

COOPERATIVE PROJECT TO CONTROL NOXIOUS WEEDS

- WA State DNR
- US Fish and Wildlife Service, Hanford, Columbia Refuge
- DOD US Army
- BLM
- Bureau of Reclamation
- County Weed Management Boards
- Private Landowners
- With the Bonneville Power Administration

Helicopter sets tower top for the new Schultz-Wautoma 500-kV transmission line.

MITIGATIONS: Minimize the Introduction and Spread of Weeds

- To control weeds, BPA will use the procedures outlined in the BPA's Transmission System Vegetation Management Program Record of Decision (August 2000) to address weed problems in subsequent maintenance activities.
- Off-road travel will be minimized to that necessary for turning equipment and vehicles around or parking and staging equipment.

MITIGATIONS: Minimize the Introduction and Spread of Weeds

- To determine the extent of the weed problems a pre-construction weed survey was undertaken to document current conditions.
- Weed control and eradication activities will occur prior to construction in selected areas.
- BPA will cooperate with county weed boards or federal land management

MITIGATIONS: Minimize the Introduction and Spread of Weeds

- To prevent the spread of weeds by unauthorized vehicles using the BPA access road system, BPA will restrict entry, where possible, by using gates.
- Vehicles will be inspected for noxious weeds prior to entering the Columbia National Wildlife Refuge and, if any are found, will be removed prior to entry.
- Prior to equipment being used on the project, it will be cleaned and inspected to prevent introduction or spread of invasive species seeds on-site.

MITIGATIONS: Minimize the Introduction and Spread of Weeds

- Seed disturbed sites at the appropriate times to minimize the invasion of non-native species using a native herbaceous seed mixture suited to the site.
- Coordinate with state and federal agencies on providing cumulative mitigation for permanent impacts to shrub-steppe habitat.
- Boundaries of rare species populations near construction activities would be flagged in the field with an appropriate buffer.

Table 2. Federal Status Plant Species Potentially Occurring in Study Area

Common Name *Scientific Name*	Federal Status	Habitat Preference and Plant Associations	Known Occurrence(s) in the Vicinity of the Study area
Ute ladies'-tresses *Spiranthes diluvialis*	Threatened	Low elevation wetlands in valleys - associated with spike-rushes, sedges, grasses, and rushes	None
Wenatchee Mountains checker-mallow *Sidalcea oregana* var. *calva*	Endangered	Grows in meadows that are moist into the summer – associated with quaking aspen, black hawthorn, snowberry, and serviceberry.	Approximately 25 miles north of the north end of Segment A.
Basalt daisy *Erigeron basalticus*	Candidate	Grows in crevices in basalt cliffs on canyon walls facing north, east, or west, from 1,250 to 1,500 feet in elevation - associated with a few grass and forb species	None within 1 mile of line segments. Occurs within Kittitas and Yakima counties along the Yakima River and Selah Creek; within the YTC, approximately 10 miles west of Segment C.
Umtanum desert buckwheat *Eriogonum codium*	Candidate	Found on the exposed tops of a ridgeline that is composed of basalt, from 1,100 to 1,320 feet in elevation - associated with cheatgrass and a variety of forbs.	One known population, on part of Umtanum Ridge, in Benton County.
Northern wormwood *Artemisia campestris* var. *wormskioldii*	Candidate	Grows only within the floodplain of the Columbia River in relatively level, arid, shrub-steppe, on basalt, compacted cobble, and sand - associated with sagebrush and grasses	None within 1 mile of line segments. Several occurrences within the floodplain of the Columbia River, several miles south of the Segment B river crossing.

Umtanum Desert Buckwheat

- Construction fencing will be installed along the access road closest to the Umtanum Desert buckwheat population to discourage travel through the population.
- At least three permanent signs between the access road and the population of Umtanum Desert buckwheat will be placed that say “Sensitive Ecological Area. Please Do Not Enter.”

Umtanum Desert Buckwheat

- Weed management on access roads and other mitigation measures mentioned above on Hanford Monument will be coordinated with Monument staff to minimize effects.
- Vehicle wash stations will be placed at all road entrances that will be used to access Umtanum Ridge to remove weed seeds from vehicles and equipment.

Umtanum Desert Buckwheat

- Approximately 1500 feet of three-strand fencing will be installed and maintained along the access road near Midway Substation to prevent unauthorized access to the Hanford Monument.
- A tubular style gate will be installed on the access road intersection near Midway Substation. This gate will be closed at all times and locked with a security chain when not in use.

Umtanum Desert Buckwheat

- Construction activities on the Hanford Monument land south of the Columbia River will take place primarily in winter or early spring when fire danger is lowest. Construction at other times will follow fire control measures.
- During extremely wet conditions in areas susceptible to severe rutting (i.e. ruts greater than four inches deep), vehicle or equipment travel will be curtailed until conditions improve or the area is sufficiently stabilized to alleviate rutting.
- Additional plant surveys will be conducted on the Hanford Monument in spring 2003.

SUMMARY

- UNDESIRABLE PLANTS ARE A FINANCIAL LIABILITY
- MUST START WITH EFFECTIVE MGT STRATEGIES
- MUST BE A COOPERATIVE EFFORT
- DEVELOP SITE SPECIFIC SPECIFICATIONS & MITIGATIONS
- IMPLEMENT THOSE SPECIFICATIONS & MITIGATIONS

FINAL TEST

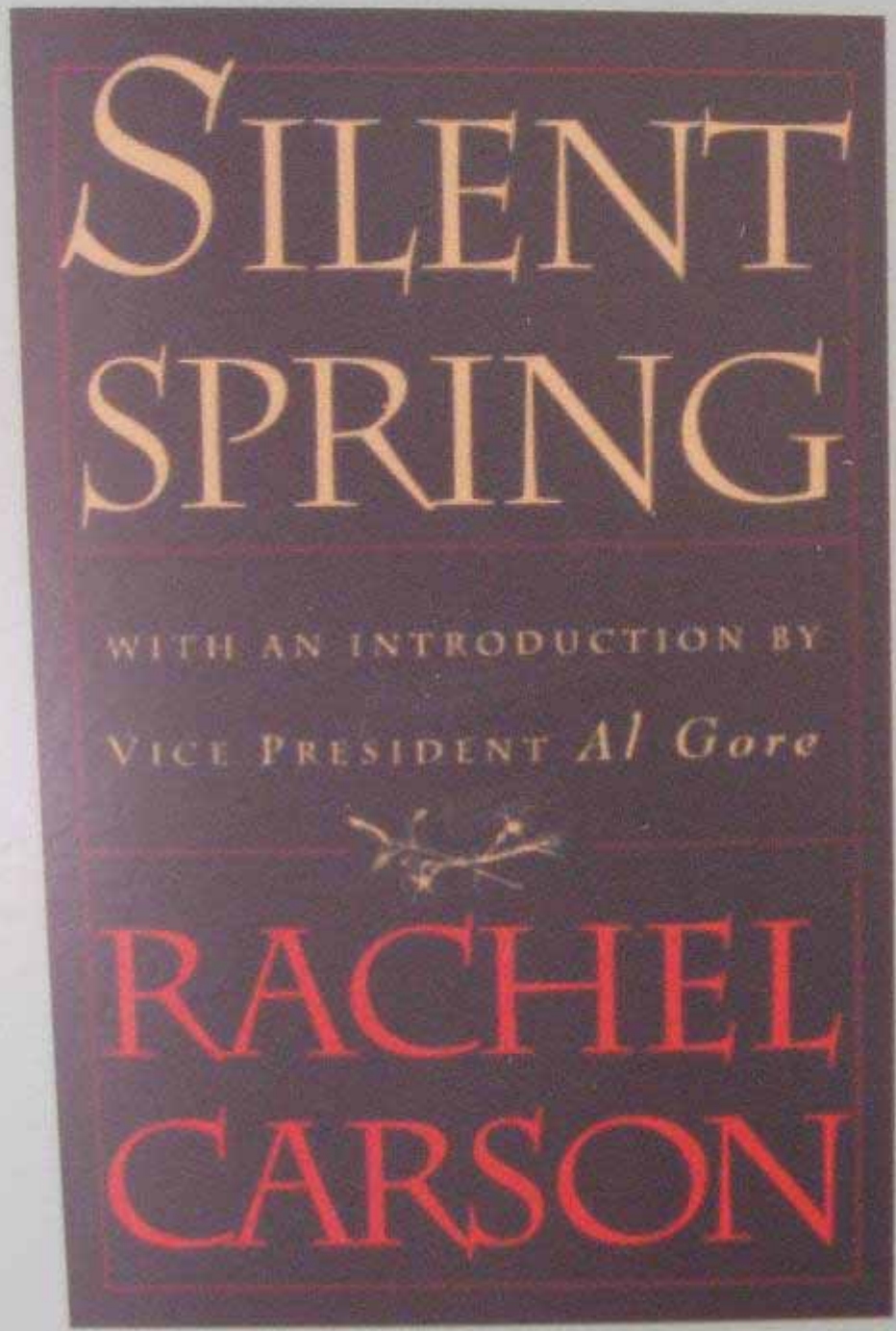
WHO WROTE THIS?

- ... a perfectly sound method of *selective* spraying is known, which can achieve long-term vegetation control and eliminate repeated spraying in most types of vegetation.
- Selective spraying was developed by Dr. Frank Egler... It took advantage of the inherent stability of nature, building on the fact that most communities of shrubs are strongly resistant to invasion by trees.

WHO WROTE THIS?

- The best and cheapest controls for vegetation are not chemicals but other plants.
- Treatment is directed only to trees and any exceptionally tall shrubs that must be eliminated. The integrity of the environment is thereby preserved, the enormous value of the wildlife habitat remains intact, and the beauty of shrub and fern and wildflower has not been sacrificed.

?



1962 – Rachel Carson publishes her book *Silent Spring* that brought to light the devastating environmental impacts of DDT and other pesticides. This was thought of as the springboard for the environmental laws and movement of the 1970s.

BONNEVILLE POWER ADMINISTRATION

Transmission System Vegetation Management Program