DRAFT ENVIRONMENTAL IMPACT STATEMENT COMMENT SUMMARY

I-5 Corridor Reinforcement Project

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INTRODUCTION

REPORT OVERVIEW

The purpose of this report is to identify and synthesize the issues raised by individuals, organizations and agencies during the draft environmental impact statement (EIS) comment period for the Bonneville Power Administration's (BPA) I-5 Corridor Reinforcement Project (I-5 Project). It does not list all the comments received, but distills the comments into key themes.

This report captures comments received on the draft EIS. The comment period ran from November 13, 2012 through March 25, 2013. BPA released the draft EIS and announced its preferred alternative, Central Alternative using Central Option 1, on November 13, 2012.

The comments contained in this report are generally related to the following:

- The draft EIS, released in November 2012, found on www.bpa.gov/goto/i5
- BPA's Preferred Alternative map, released November 2012 (see page 2), which identifies Central Alternative using Central Option 1 as the preferred alternative
- The Alternatives and Options Map, released in May 2011 (see page 3), which includes all of the segments depicted on the November 2010 Project Map combined into four route alternatives and additional options as they are analyzed and compared in the draft EIS
- Information in the November 2012 Project Update, found on www.bpa.gov/goto/i5
- The Issue Brief "Why BPA prefers Central Alternative using Option 1," issued in November 2012, found on www.bpa.gov/goto/i5
- Information included on the online interactive project map found on http://gis.bpa.gov/gis/i5/gmviewer.html

This report does not contain responses to comments. BPA will respond to all comments received during the draft EIS comment period, in the final EIS, expected in 2014. Although the official draft EIS comment period deadline has passed, BPA will continue to accept feedback and questions about the project.

PROJECT DESCRIPTION

BPA is a federal agency under the U.S. Department of Energy (DOE) that serves the Pacific Northwest through operating an extensive electric transmission system and marketing wholesale electrical power. BPA is experiencing growing demand within its existing electrical transmission system in Southwest Washington and Northwest Oregon. To ease congestion and keep pace with these growing demands, BPA is proposing the I-5 Project, a new 500-kilovolt (kV) transmission line and two new substations between Castle Rock, Wash. and Troutdale, Ore. BPA identified four action alternatives for the proposed transmission line and substations. These alternatives, and a No Action Alternative were analyzed in the EIS.

To implement the project, BPA must comply with the provisions of the National Environmental Policy Act (NEPA). The NEPA process is intended to promote better agency decisions by ensuring that

high-quality environmental information is available to agency officials and the public before the agency decides whether and how to undertake a federal action. Under NEPA, BPA works closely with other federal agencies and state, local and tribal governments; public and private organizations; and the general public to better understand the potential environmental and community impacts.

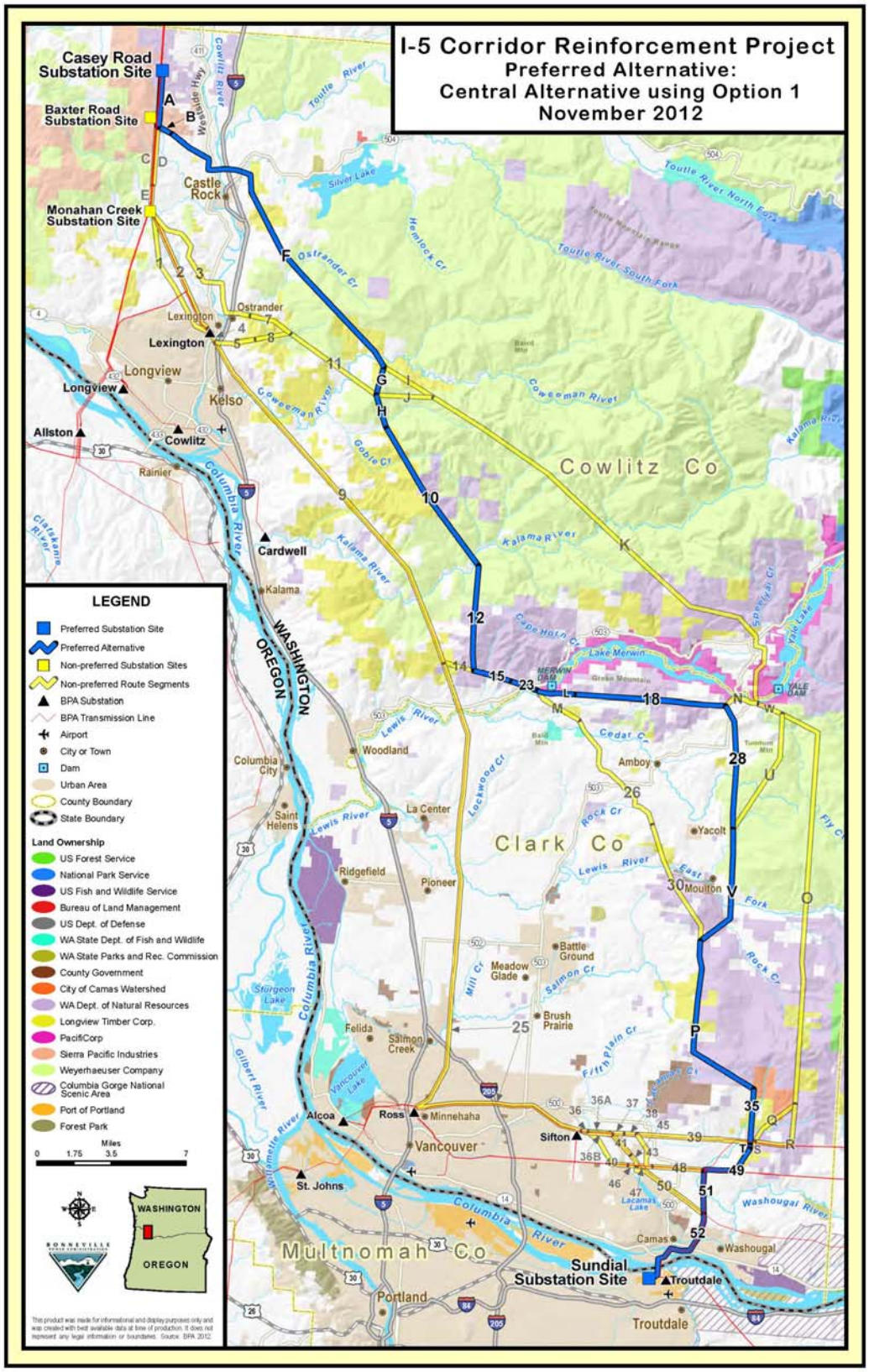

Figure 1: Preferred Alternative Map, November 2012

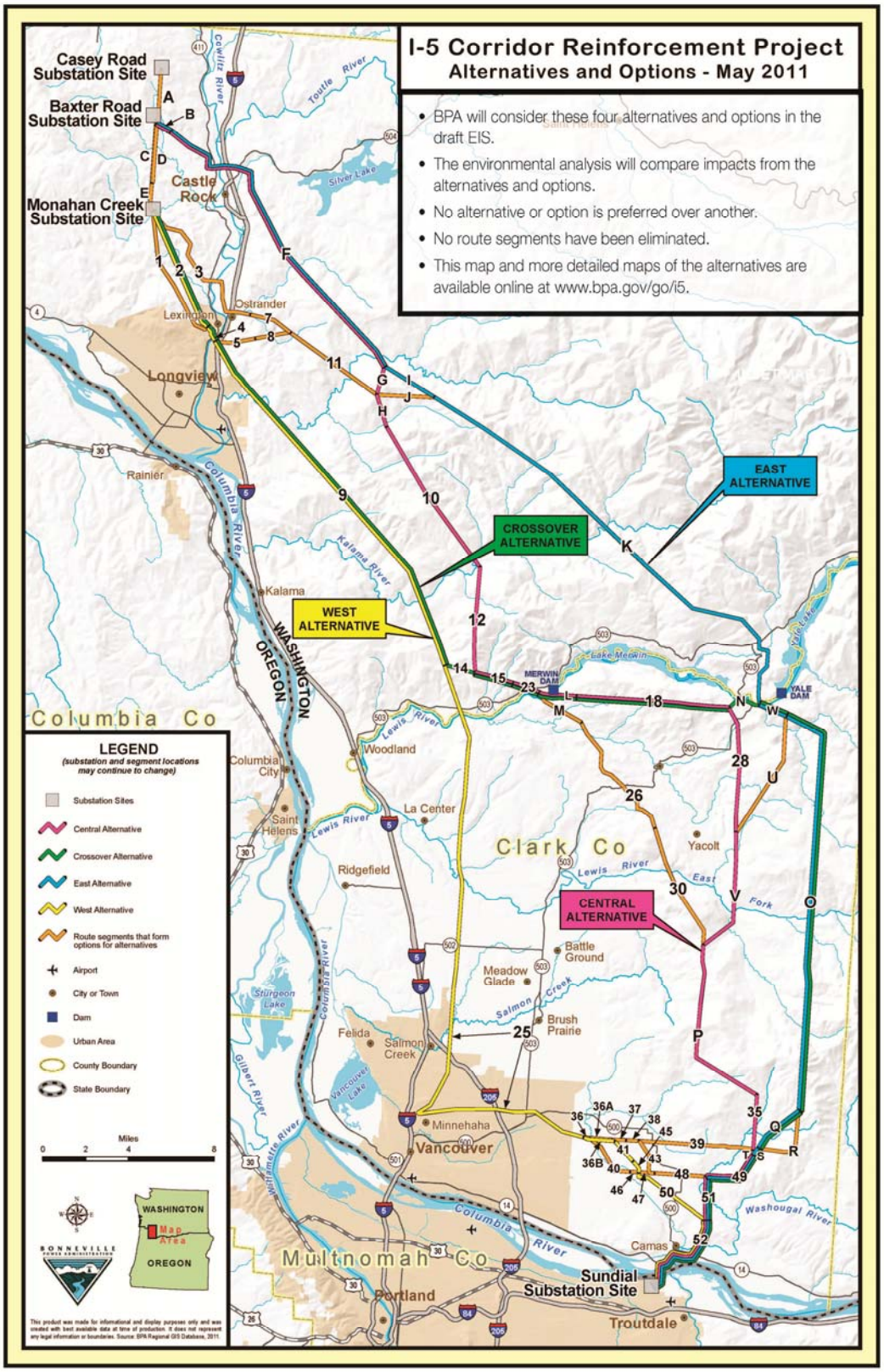

Figure 2: Alternatives and Options Map, May 2011

SOLICITATION OF COMMENTS UNDER NEPA

BPA published a Notice of Intent (NOI) (*74 Federal Register 52482, October 13, 2009*) to prepare a draft EIS for the I-5 Project. This initiated the public scoping comment period, which closed on December 14, 2009. However, BPA continued to accept and review public comments up through the publication of the draft EIS and will do so throughout the duration of the NEPA process. All official public notification materials are available on the project website.

BPA released its draft EIS for public review and comment on November 13, 2012. A Notice of Availability (NOA) *(77 Federal Register 70161, November 23, 2012)* for the draft EIS was published in the Federal Register. NEPA requires a comment period of at least 45 days. Given the project's complexity and the length of the draft EIS, BPA initially scheduled the comment period for 108 days, from November 13, 2012 to March 1, 2013. In consideration of requests from the public, BPA extended the comment deadline to March 25, 2013. This resulted in a 132-day comment period.

To announce the release of the draft EIS, BPA distributed a notification package to approximately 14,000 addresses on the project mailing list, including landowners within a 500-foot to one-mile buffer of the proposed route segments, interested individuals, tribal governments, elected officials, local governments, businesses, organizations and state and federal agencies. The notification packet included:

- A copy of the draft EIS on compact disc (CD)
- November 2012 Project Update
- November 2012 Issue Brief
- Draft EIS comment form
- Postage-paid return envelope
- Guide to reading the EIS on compact disc

BPA sent press releases to local media and placed paid advertisements in the following newspapers about the release of the draft EIS, the comment period and public meetings:

- *The Columbian*
    - Advertisements ran on January 2, 6, 16 and 27
- *Camas-Washougal Record*
    - Advertisements ran on January 2, 6 and 27
- *Battle Ground Reflector*
    - Advertisements ran on January 9, 16 and 30
- *Longview Daily News*
    - Advertisements ran on January 6, 9 and 27
- *The Oregonian*
    - Advertisements ran on January 2 and 27

BPA posted the draft EIS, notification materials and information on the project website at www.bpa.gov/goto/i5. Copies of the draft EIS also were made available at community libraries and locations throughout the project area and at drop-in sessions and public meetings.

Draft EIS comments, and comments received before the DEIS comment period, are posted on the Search Comments page of the project website: www.bpa.gov/goto/i5.

Communications with comment content limited to map or information requests are generally not posted on the project website. All communications received during the draft EIS comment period are included as part of Appendix A. BPA will respond to these comments in the final EIS, expected in 2014.

COMMUNICATION METHODS

During the draft EIS comment period, BPA received communications through a variety of methods, including:

- An online form
- A project email address
- Postal mail or fax
- A toll free comment and information voice messaging system
- Comment forms and written comments collected at the 12 drop-in sessions and public meetings
- Verbal comment opportunities at six public meetings

For further discussion on processing communications received and distilling comments, refer to "Processing Communications."

DROP-IN SESSIONS

BPA hosted six informal drop-in sessions to help people review the draft EIS. Locations and attendance are listed below:

Location	Date	Signed in	Approximate attendance
Castle Rock	December 4, 2012	57	65
Amboy	December 6, 2012	38	45
Camas	December 8, 2012	12	15
Vancouver	December 11, 2012	17	20
Camas	December 12, 2012	9	10
Amboy	December 15, 2012	22	25
Total		**155**	**180**

Members of the public received help from project staff on navigating the draft EIS and asked questions about the project, the EIS process, analysis and how to submit comments on the document. There were no formal presentations. Laptops were available to review the document, view the online interactive map and maps were printed for property owners.

Approximately 180 people attended the drop-in sessions. A summary of the drop-in sessions is available on the project website: www.bpa.gov/goto/i5

PUBLIC MEETINGS

BPA hosted six additional public meetings during January and February 2013 to accept comments on the draft EIS. Locations and attendance are listed below:

Location	Date	Signed in	Approximate attendance
Camas	January 10, 2013	107	120
Amboy	January 12, 2013	65	70
Battle Ground	January 23, 2013	47	50
Longview	February 2, 2013	40	45
Castle Rock	February 4, 2013	75	80
Vancouver	February 6, 2013	37	40
Total		**371**	**405**

The public meetings were structured to include two parts: an open house format with stations staffed by BPA project team members, where attendees gathered project information from handouts, maps and display boards and asked questions of BPA staff; and a verbal comment session where verbal comments were submitted to the project team and recorded as draft EIS comments. A comment station provided members of the public an opportunity to complete written comment forms. Laptops also were available to locate properties in relation to the project alternatives; staff printed property maps, showed attendees how to navigate the draft EIS on CD and shared resources on the project website. Separate areas were designated at each venue to accommodate the open house and verbal comment session.

Approximately 400 people attended the public meetings. A summary of the public meetings is available on the project website: www.bpa.gov/goto/i5.

COMMENT ANALYSIS

COMMUNICATIONS RECEIVED

This report summarizes the 662 communications received on the draft EIS, which will be responded to in the final EIS. BPA has received over 4,800 communications since the original Federal Register notice on October 13, 2009. Communications were received by BPA through a variety of methods (described in more detail in "Communication Methods"). All communications were reviewed to identify information requests that needed follow-up from BPA staff, such as project area map requests, and to identify and categorize comments (see "Processing Communications"). All draft EIS communications are included in Appendix A, which also includes an index of communications listed alphabetically by commenter. The appendix can be accessed at: www.bpa.gov/Projects/Projects/I-5/2013Documents/2013_0619_BPAI5_D_CommentSummary_AppendixA.pdf

PROCESSING COMMUNICATIONS

Communications for this report were processed in the same manner as described in the January 2010 Scoping Report, the April 2011, March 2012 and January 2013 supplemental comment reports, and according to protocols established for the project. Analysts recorded the name and contact information of each commenter in a computer database. Each communication was assigned a unique identification number and linked to its contact(s). This approach allows analysts to view all communications submitted by each contact.

Communications submitted were saved in portable document format (PDF) according to their unique identification number. The text of each communication was entered into the database. Once a communication was processed, personal information was removed before it was posted to the I-5 Project website. Commenters are able to view the communications they submitted, as well as those of others, on the project website.

Once the commenters and their communications were entered into the database, analysts read through each communication to identify and code unique comments according to their category. Many communications contain multiple comments. Attachments to communications also were coded if they contained additional comments, rather than supporting information. The coding system used during the initial scoping period was revised to include new categories based on topics in the draft EIS. Appendix B contains the coding categories used for this report.

Each communication was reviewed at least twice – once by the primary coding analyst, and then again by a second analyst. This quality assurance process allows for discrepancies or inconsistencies to be resolved during the coding process.

Throughout this process, BPA staff maintained access to the comment database and were able to review and search the database for contact information, comment categories and perform keyword searches. They also were able to use the database to review and respond to information requests.

METHODOLOGY

This report summarizes key themes distilled from the 662 communications received from November 13, 2012 to March 25, 2013. To create this summary, analysts queried the database to generate reports organized by each comment category. These reports were used to synthesize comments into summary statements that captured the unique issues and concerns expressed by commenters.

For the purposes of this summary, every comment has equal value, whether it is stated only once or multiple times. The synthesis represented in this report does not seek to tally the number of comments received on any given topic, as the draft EIS comment period is not intended to function as a "voting" process.

COMMENT TOPICS

ORGANIZATION OF THIS SECTION

The following sections are organized into categories that reflect the comments submitted for the period of November 13, 2012 to March 25, 2013. These comments are summarized; the sections do not capture every comment for each category and are not quantified. Quoted text is used to illustrate the range of comments received. These quotes are opinions and are not intended to represent statements of fact.

PROJECT PURPOSE AND NEED

Commenters submitted various opinions related to the purpose and need for the project. Commenters felt that over time BPA has provided inconsistent or confusing reasons for the purpose and need for the project since it was first proposed. Some commenters suspect that the project is primarily being sited to benefit power companies. Other commenters said that results provided in the non-wires studies seemed inconsistent with BPA's plans to move forward with studying an action alternative at this time.

Commenters expressed doubt that the project will benefit residents and businesses of Clark and Cowlitz counties and believed that the project will primarily serve regions in Oregon, California and Canada. Commenters thought that the project could serve no local benefit because the project does not appear to offer any interconnections to Clark and Cowlitz counties. These commenters believed that BPA has misrepresented data to support the assertion that the project would benefit southwest Washington.

Commenters from rural areas said they thought it was unfair to site the project in less populated areas where demand for electricity is lower. Commenters believed that areas negatively affected by the project should be fairly compensated or mitigated by people who live in areas that will benefit from the project. Commenters said that the project should comply with language in NEPA stating that the beneficiaries of a project should bear the costs of the project.

Some commenters identified projects or studies from other utilities that they believed negate the need for the I-5 Project. Commenters asked BPA to work with other utilities and explore new technologies to find solutions that would eliminate the need for the I-5 Project.

Commenters would like BPA to explain why developing new electricity generation facilities is outside of the scope of the project. Some also wanted BPA to consider building small local-scale electricity generation facilities instead of regional-scale energy facilities.

Commenters asked BPA to consider energy conservation programs as an alternative to building the project. Some commenters believed that air conditioning systems are primarily driving the need for the project and want alternatives to air conditioning to be implemented instead of building a new transmission line.

Commenters asked why a new substation and transmission line are being proposed in Castle Rock when the stated purpose of the project is to relieve congestion along the South of Allston path. Commenters wanted to know why a new substation could not be built near the existing Allston Substation and serve as the beginning of a route to the Pearl Substation, eliminating the need for a new transmission crossing over the Columbia River.

Commenters wanted to better understand why BPA decided that the Pearl routes would not meet the project's stated purpose and need, particularly if the need for the project was driven by local load growth in Oregon.

Commenters asked for more information to be included in the Purpose and Need chapter of the final EIS, including:

- A more robust purpose and need statement including convincing evidence of the project's need
- More detailed information about the locations of increased load growth
- The names and locations of transmission service customers
- Discussion of how the economic recession has or has not affected the need for the project
- Clearer detail and discussion when referencing other studies or processes within the EIS

RELIABILITY

Commenters shared various opinions on how the project would improve the reliability of BPA's transmission system and whether the preferred alternative is the best alternative to provide additional reliability.

Commenters said the draft EIS does not address potential effects the project may have on current reliability standards for transmission line crossings or siting lines in parallel. Commenters asked that the final EIS identify any effects to reliability standards and outline any necessary mitigation measures.

Commenters said that people expect reliable electricity service and that the project would help maintain service.

Also refer to "Action Alternatives and Segments" and "Regional Energy Generation" sections for further discussion on reliability and project need.

PROJECT PROCESS

DECISION-MAKING PROCESS

Commenters thought that BPA's reasons for identifying the Central Alternative as the preferred alternative were not convincing and requested more transparency in the decision-making process. Commenters asked that BPA adopt a decision-making process that is more "holistic" and weighs potential effects the project may have on different resources within the human and natural environments over a longer time period.

Commenters wanted BPA to differentiate and expand on how BPA's internal decision-making process and the public input process contributed to route development and selection.

Commenters questioned the level of involvement BPA has allowed cooperating agencies in its decision-making process. They asked BPA to work more directly with local governments that represent affected landowners. Some commenters were disappointed that BPA did not form a citizen's advisory committee for the project.

Commenters requested that BPA consult with agencies with expertise in resources that may be subject to direct, indirect and cumulative effects from the project. Commenters specifically requested that BPA

consult with the U.S. Forest Service, the U.S. Bureau of Land Management and the National Park Service in addition to local cooperating agencies.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

Commenters said that the alternatives considered in the draft EIS do not make up a reasonable range of alternatives as required by NEPA because all alternatives considered would use Segment 52 through Washougal and Camas. Commenters asked BPA to consider new alternatives with the same level of research as the four action alternatives considered in the draft EIS.

Commenters believed that BPA did not fully consider a reasonable range of alternatives in an attempt to achieve an expedited NEPA process.

Commenters asked BPA to reopen the scoping process and consider a wider range of alternatives, including:

- Northeastern route options
- Routes to BPA's Pearl Substation in Wilsonville, Oregon
- Double-circuit or triple-circuit tower configurations on the West Alternative

Commenters believed that BPA is not willing to explore feasible route options that may affect fewer homeowners because they are technically or politically more challenging.

Commenters said that the project proposal does not comply with the purposes and goals of NEPA as outlined in Title I of NEPA.

Commenters requested that BPA extend the draft EIS comment period because the draft EIS was released prior to the winter holiday season. Commenters wanted more time to meet with project representatives and gain assistance accessing project information before the comment period closed. After BPA extended the comment period from 108 days to 132 days, some said they would have liked to have additional time to provide more information about their properties and feedback on the draft EIS. Some commenters requested that the comment period be extended to 198 days.

Commenters said they would have liked to have more time to review draft EIS comments submitted by state and federal agencies before submitting their own comments on the project. They said this would have enabled them to use scientific information and resources available to these agencies that are not available to other members of the public.

Commenters said that most landowners need to seek professional help to analyze the environmental resources on their land. They thought that it was challenging and unfair to ask landowners to make informed comments on the draft EIS.

Commenters said that the length of the NEPA process has been frustrating for landowners who feel they cannot make major decisions about their properties until a final decision is made about the project. They also said that people are tired of engaging in the project and that the length of the process can be used to reduce opposition.

Commenters asked if all alternatives and options in the draft EIS would continue to be considered for the project. Commenters asked BPA to release less-preferred routes from the NEPA process.

Commenters thought there is a conflict of interest in BPA conducting the environmental review for its own proposal.

Commenters were concerned that information in the draft EIS is largely obtained from database research rather than field research. They thought field research would provide more accurate information.

Commenters perceived that large corporate and public landowners have more influence over the decision-making process than small private landowners. They also believed that large landowners have more resources available to be able to comment on the draft EIS compared with small landowners.

Commenters indicated places where the draft EIS does not supply sufficient data needed to make informed project decisions.

Commenters said that the draft EIS lacks sufficient information to conclude that BPA's preferred alternative is the environmentally preferable alternative.

Commenters asked BPA to include more detailed baseline information on the environmental impacts of the existing transmission lines on the West Alternative and potential effects of adding an additional line to the right-of-way.

Commenters said the draft EIS does not adequately study potential effects the project may have on areas adjacent to the proposed right-of-way. Commenters wanted the EIS to address potential effects the project may have on landowners who are not directly affected by a new right-of-way or transmission line and discuss possible mitigation or compensation for these effects.

Commenters submitted factual corrections and suggestions for adjusted or additional language in the draft EIS to accurately reflect location names, land ownership and formal terminology.

PUBLIC INVOLVEMENT

Public involvement topics, organized by category, are included below:

Notification:
Commenters said they were pleased with BPA's work to keep the public informed about the project. Other commenters said they had not received notification about the project and thought they should have been notified earlier.

Process:
Commenters did not think BPA has made changes to the project based on public input or did not understand how BPA used comments from the scoping period to help develop the draft EIS and BPA's preferred alternative. Commenters wanted to know whether BPA considered comments received after the official scoping ended. Other commenters asked that BPA demonstrate how public input has affected the project proposal.

Commenters wanted to understand how comments submitted on the draft EIS would affect the project. They asked whether public comments would receive a response in the final EIS and asked BPA to list all changes made to the EIS as a result of public input.

Commenters stated that BPA has not been transparent with information in the past and that this has affected their level of trust in BPA's decisions.

Landowners with property near the lettered route segments added in August 2010 felt that they had less time to react and comment on the project compared with landowners on other route segments that were notified earlier.

Commenters were concerned that BPA would only consider formal comments on the project submitted through official formats and not consider information relayed to project representatives verbally.

Commenters asked BPA to compensate them for time and expenses incurred while commenting on the draft EIS.

Rural commenters felt they had less influence on project decisions because there are fewer people in the project area compared with the metropolitan areas they perceived the project would benefit.

Commenters asked if BPA would change its preferred alternative after making all suggested changes to the draft EIS as a result of public comment.

Commenters asked BPA not to change the preferred alternative late in the process without giving the public a chance to react. They noted that project outreach materials do not give an indication of what process would take place if the preferred alternative changes.

Commenters thanked BPA for providing an opportunity to comment on the draft EIS.

Outreach Materials:
Commenters requested additional copies of maps and other outreach materials to distribute in their communities. Commenters asked BPA to provide reference centers copies of the draft EIS at locations in their community, in addition to the existing reference locations posted in project newsletters.

Commenters asked BPA to adjust the project website to make it easier to read posted comments.

Information requests:
Commenters asked to be contacted by project representatives to ask questions, receive updates and discuss the project. They asked for copies of the draft EIS in print and on CD and requested assistance accessing information in the draft EIS as well as the reports that support the draft EIS. Landowners requested assistance finding their property in relation to the proposed locations of project components such as easements, transmission towers, centerlines, access roads and BPA's preferred alternative.

Commenters asked if there are any studies that informed the draft EIS that BPA has not made available to the public.

Commenters said that BPA inappropriately redacted information from materials provided in Freedom of Information Act requests or said BPA did not fulfill their requests in a timely manner.

Commenters submitted adjustments for the project mailing list.

Commenters contacted project representatives to confirm that their comments were received or to receive assistance submitting comments electronically.

Landowners requested site visits from project representatives to help them understand and explain how the project may affect their property.

Maps:
Some commenters were not aware that an interactive map is available on the project website and asked BPA to provide a map that can display proposed project components in relation to specific addresses.

Commenters questioned the quality and accuracy of maps used to site the project. Some commenters had provided map corrections previously and wanted to know why the newer project maps did not reflect this information.

Commenters indicated that some roads were mislabeled and some addresses did not correlate accurately with home locations when using the interactive map.

Commenters asked for assistance obtaining and interpreting project maps as well as centerline, tower location and access road information available on the interactive map.

Commenters requested geographic information system (GIS) map files with project component information.

Public Meetings:
Commenters thanked BPA for hosting public meetings, making project information available to the public and giving people a chance to speak with project staff members in person.

Commenters thought there were too many project staff members at public meetings compared with the number of people who attended them.

Opportunities for further public participation:
Commenters asked that BPA continue to make itself available to consult and work with landowners during all stages of the project.

ACTION ALTERNATIVES AND SEGMENTS

BPA received comments on the process of selecting a preferred alternative, proposed route segments, changes to route segments, new alternatives and alternatives considered but eliminated from further study.

SITING AND SEGMENT DEVELOPMENT

Commenters provided feedback about the proposed route segments on project maps and asked questions about the siting process. They asked BPA to explain how the new lettered segments and substations that were released in August 2010 were developed after the close of the scoping period. Additionally, commenters asked whether these newer segments were developed hastily and poorly planned in terms of potential negative effects to private landowners.

Commenters asked BPA to explain how the project would be sited to minimize impacts to property owners and specifically requested that BPA site the new transmission line along property boundaries and avoid bisecting parcels. Additionally, commenters stated that in some places the preferred alternative seems to follow parcel lines but effectively bisects adjoining properties that are owned by the same person.

Commenters said that BPA may have developed project segments based on outdated aerial and satellite images and wanted BPA to know that in recent years new land developments have been planned and executed in the project area and vegetation has grown.

Commenters asked that the project be sited on Washington State Department of Natural Resources (WDNR) land or public land wherever possible, to avoid unfair burdens on private property. Some commenters thought the preferred alternative prioritized the value of public land over the value of private land because they believed the agencies involved want to preserve public land values for future sales. Commenters pointed out that the more easterly segments (added in August 2010) still affect private homes even though BPA states that these segments were developed to avoid homes.

ROUTE SEGMENTS

Commenters thought that Segment F was poorly sited and negatively affects too many private properties.

Commenters said they would like to see more options that avoid negative effects to private property and urbanized areas. These comments specifically referred to segments 50, 51 and 52. Commenters also said the draft EIS is inadequate and does not meet NEPA requirements as it does not consider a reasonable alternative or route option that avoids the Camas and Washougal areas

Commenters identified that Segment 52 is common to all action alternatives in the draft EIS and asked BPA to consider route alternatives that would not use Segment 52.

Commenters questioned whether BPA had considered the extreme weather conditions of snowfall, precipitation and temperatures along Segment K.

Additionally, commenters requested adjustments to segments F, 18, 28, V, P and 35 to minimize impacts and avoid bisecting properties.

Also refer to "Mitigation and Monitoring," "Natural Resources," "Transmission Towers and Centerline," "Access Roads" and "Identifying the Preferred Alternative" sections for further discussion on segments impacts.

IDENTIFYING THE PREFERRED ALTERNATIVE

Commenters provided feedback on the selection of the preferred alternative, including general preferences and specific recommendations based on several criteria and siting concerns.

Commenters identified criteria and recommendations that BPA should consider in making its final decision on the preferred alternative. Commenters used criteria to express support for or against each of the four action alternatives. Route alternatives, segments and geographic locations are referenced when mentioned by commenters.

GENERAL

Commenters identified data in the draft EIS they felt supported selection of the West Alternative over the Central Alternative.

Commenters questioned the quality, accuracy and consistency of information in the draft EIS, and subsequent conclusions which led BPA to select the Central Alternative as its preferred alternative. Additionally, commenters said adopting the Central Alternative as the preferred alternative is premature because the draft EIS does not sufficiently identify and analyze impacts and necessary mitigation measures for each action alternative.

PHYSICAL DESIGN

Commenters believed that transmission lines are vulnerable to extreme weather, airplane collisions and terrorist attacks and that siting transmission lines parallel to existing lines on the West Alternative increases electricity reliability risk for the region.

Other commenters believed the Central Alternative would be subject to increased reliability risks from extreme weather, geologic hazards and vandalism compared with the West Alternative. They questioned the reliability risk in siting the project in parallel with existing lines on the West Alternative, since the existing corridor has a proven record of reliability, stability and security for over 70 years and parallel transmission lines already exist on some of BPA's current corridors.

Commenters identified examples and reports where new transmission lines have been constructed along existing transmission easements, to minimize impacts to people and the environment.

Commenters noted instances where BPA placed new transmission lines in shared transmission corridors for the John Day-McNary line, Longview-Napavine line and Bonneville-Vancouver line.

Additionally, commenters said the draft EIS fails to include information indicating reliability issues with the current existing corridor, or why reinforcing the West Alternative would contribute to reliability problems. Commenters requested BPA quantitatively indicate why the new right-of-way would be more reliable than using the existing right-of-way on the West Alternative.

Some commenters preferred the selection of the West Alternative as it meets all four stated objectives for the project, including maintaining system reliability and performance, and helping BPA meet statutory and contractual obligations.

Commenters believed the line will not directly benefit residents of Clark and Cowlitz counties, and should be sited in the county or area where the majority of the benefits will be received, to avoid impacting property values and future income from forest land in Clark and Cowlitz counties.

Commenters suggested vandalism in the right-of-way should be less of a problem in populated areas, particularly along the West Alternative.

Commenters said the crossing of the Cowlitz River on Segment F should be relocated further north on more stable terrain to minimize risk and destruction of habitat. Commenters felt BPA should consider the higher elevation of Segment F which could cause more weather extremes, impacting the reliability of the line. Additionally, commenters suggested crossing the Cowlitz River on existing right-of-way in Lexington, which has a history of stability.

Commenters opposed the Central Alternative, saying it would be more susceptible to damage from extreme weather and wildfires in heavy timber lands. Commenters also said the Central Alternative would create trespassing, vandalism and increased safety risks.

Others supported the Central Alternative, as the new transmission line will not interfere with the existing corridor on the West Alternative, increasing reliability and reducing potential for damaging two lines during adverse weather or disasters.

Commenters questioned BPA's selection of the preferred alternative, when no field studies had been conducted along the existing right-of-way. Additionally, commenters asked if the draft EIS included a chapter that explains in detail why the data supports selection of the Central Alternative as the preferred alternative.

Commenters requested BPA site a portion of Segment 52 underground on the east side of the Washougal River along Highway 14 and up Woodburn Hill. Commenters believed this would avoid visual impacts within Camas city limits and the Washougal urban growth boundary.

Commenters said a more easterly route than the preferred alternative would impact less private landowners, and also provide a fire break to protect forest lands.

Commenters asked what the likelihood was of BPA selecting segments K and I on the East Alternative.

Commenters favored the No Action Alternative, to reduce power consumption and protect the environment.

SOCIAL AND ECONOMIC

Commenters encouraged BPA to place the line farther east than the preferred alternative, away from urban areas and people as it's the "ethical and moral thing to do." Commenters said a more easterly route would minimize effects on landowners, property values, businesses, communities and viewsheds and would reduce health concerns from electric and magnetic fields (EMF). Commenters also said siting the line farther east on larger landowner parcels and public land would minimize compensation to small, private landowners.

Commenters said BPA should adopt a route selection principle of minimizing proximity of lines to homes, schools and businesses to avoid possible future litigation from perceived health risks from EMF.

Additionally, commenters expressed frustration that BPA had not considered previous public feedback and that alternatives are still being considered that are located in populated areas. Commenters also said that increased costs of placing the line further east should not be the deciding factor, as rate payers could absorb the higher costs to minimize impacts to populated areas.

Commenters believed BPA is prioritizing the rights of homeowners in urban areas over those in rural areas impacted by the project.

Commenters said that although the West Alternative has the lowest capital cost, it has the highest economic and fiscal impact to the public, with increased health and safety risks.

Commenters opposed the West Alternative as it would affect the most people, homes and schools located in proximity to the existing line. Commenters also said it would have the highest visual impact. Additionally, commenters opposed selection of the West Alternative because of increased levels of EMF in densely populated areas and perceived negative effects to property values and tax revenues. Some of these commenters asked BPA to remove the West Alternative from consideration under the NEPA process.

Other commenters supported the West Alternative as it minimizes financial impacts to ratepayers and landowners and is the lowest overall cost by utilizing existing right-of-way. Additionally, commenters said spending $74 million more for the Central Alternative is not responsible or efficient use of tax payer funds particularly in the current economy, and contradicts BPA's goals of managing costs responsibly for the project. Commenters also said that homeowners along the West Alterative purchased or built their homes knowing there was an existing BPA right-of-way and potential for future expansion of transmission lines. Others said discussion about the lower cost of the West Alternative was "short-sighted" as it only considers initial upfront costs, not ongoing costs.

Some commenters preferred the West Alternative, stating that it would not create any additional tax burdens on cities, counties, and schools since the taxation of existing adjoining properties would not change. Commenters also favored the West Alternative because it would cause minimal land acquisition, litigation, maintenance costs and environmental impacts.

Commenters expressed support for the Central Alternative as the preferred alternative because it avoids densely populated areas, impacts fewer property owners and is a good compromise of environmental and social considerations.

Others said that the Central Alternative would disproportionately affect small towns and low-income communities including Castle Rock, Washougal, Camas and rural populated areas. Commenters were opposed to the Central Alternative as they believed it shifts the social and economic burden to rural and natural resource-dependent communities. Additionally, commenters said property values and tax revenue would be severely impacted in these communities, affecting the municipality's ability to provide essential infrastructure and services to the community. Commenters requested BPA consider other routes that have fewer financial, health and land use impacts to communities in Cowlitz and Clark counties.

Commenters said selecting the Central Alternative contradicts the majority of public input on the project and its impacts.

Commenters said the Central Alternative should not be selected as it negatively affects popular recreation areas and cultural and historical sites in Castle Rock.

Commenters opposed the Central Alternative suggesting it would negatively impact viewsheds for property owners located adjacent to or near the line. Commenters preferred siting the line farther east in more remote areas, to minimize visual impacts to landowners.

Commenters believed that BPA selected the Central Alternative to purchase new right-of-way while the property and housing market is low.

Commenters said landowners would experience significant economic losses from the Central Alternative due to permanent loss of productive timberlands and reduced land valuations from visual impacts.

Commenters wanted to avoid siting the line near Tum Tum Mountain along Segment 18, to avoid visual impacts. Additionally, commenters requested BPA relocate sections of segments V and P to minimize negative impacts to small landowners and natural resources.

Some commenters requested BPA eliminate the Central and East alternatives from consideration, and use the existing right-of-way along the West Alternative.

Commenters opposed the East Alternative as it would be the most expensive route to build.

LAND USE

Commenters favored alternatives sited farther north and east, on public land over private land, larger parcels, or undeveloped commercial and state forest lands. Commenters said this would minimize impacts to small, private landowners and densely populated areas.

Commenters suggested segments 40, 41, 44, 46 and 50 should be avoided because they affect lands planned and zoned for future economic development by the City of Camas.

Commenters preferred the West Alternative over the Central Alternative as it uses existing right-of-way and areas that are already impacted by the project, and affects the least number of small private landowners. Additionally, commenters said all other action alternatives would require substantial new easements and create impacts on lands that are currently undisturbed and not subjected to transmission lines.

Commenters preferred the West Alternative as it minimizes visual, land use, safety, property value, water quality, wildlife, wetland and quality of life impacts from a new right-of-way and new access roads. Commenters also identified land use data in the draft EIS to support selection of the West Alternative over all other alternatives.

Commenters favored selection of the Central Alternative as it avoids the most densely populated areas on the West Alternative, and limits impacts to Cowlitz Public Utility District facilities.

Commenters requested Segment F be avoided or relocated because it affects lands planned and zoned for future residential growth in Castle Rock's Urban Growth Area and Water System Service Area.

Commenters opposed the Central Alternative because it affects too many small parcel owners, and permanently removes land from current use, restricts future better use, and clears land of vegetation and trees.

Commenters requested BPA avoid populations on segments 18 and 28, and place the line farther east where population per square mile is lower.

NATURAL RESOURCES

Commenters suggested BPA select a route located farther east than the preferred alternative, to minimize impacts to wetlands, watersheds and water sources, wildlife habitat and environmentally sensitive areas of other routes.

Commenters supported the West Alternative as the land is already disturbed, causing fewer environmental impacts than other action alternatives. Others said although the land is already cleared, it provides a pathway for wildlife to safely migrate, and construction of additional lines on the right-of-way could impact this use.

Commenters said the draft EIS fails to provide an accurate comparison of the West Alternative from other alternatives, as it does not clearly define incremental, ongoing environmental impacts from an existing corridor. Instead it considers new environmental impacts from new corridors.

Commenters favored the West Alternative due to lower and flatter terrain and drier climate compared to other action alternatives.

Commenters expressed preferences for selecting the West Alternative over other alternatives, as the project could use existing access roads, and limit ecological impacts created by new access roads.

Commenters said that BPA should not select the West Alternative because of excessive impacts to wetlands (particularly on segments 9 and 40) and potential effects to water sources, wells and aquifers.

Others said effects to wetlands could be mitigated by double or triple-circuiting the existing lines on the West Alternative.

Commenters opposed the Central Alternative as it has significant environmental impacts compared to disturbed land on the existing right-of-way, affecting regional forest-related public resources including water quality, watersheds, fish habitat, riparian habitat, special status and priority habitat wildlife species, geology, soils and wetlands.

Commenters requested the crossing of the Cowlitz River on Segment F be avoided due to potential effects to water quality, wetlands and riparian zones of an important known wildlife habitat and special status species area.

Commenters supported selection of the Casey Road substation site on the Central Alternative, over the Monahan substation site on the West Alternative as it minimizes impacts to known threatened and endangered species in the immediate area.

Commenters opposed the East Alternative as it has the greatest environmental impacts of all alternatives.

ALTERNATIVES CONSIDERED BUT ELIMINATED

Commenters provided feedback and suggestions on several alternative routes and options BPA considered but eliminated from further study, prior to the draft EIS. Many recommended these routes be re-considered for further detailed study.

NON-WIRES ALTERNATIVE

Commenters suggested that BPA use its resources to pursue energy conservation, cogeneration, reducing peak-load demand and other non-wires solutions instead of spending resources on a new transmission line. Others said BPA should use newer technology to expand the capacity of the grid.

Additionally, commenters asked if BPA could spend more time studying other routes given the non-wires study shows the project is not needed as soon as originally thought. Commenters also said that building new transmission lines would encourage energy consumption to increase.

ALTERNATIVE OREGON ROUTES (PEARL ROUTES)

Commenters asked BPA to reopen the scoping period to fully consider routes to the Pearl Substation in Oregon. Some of these commenters thought that BPA is not in compliance with NEPA unless it includes the Pearl routes. Commenters said BPA's decision to eliminate the Pearl routes based on high impacts was "disingenuous," considering the impacts of the preferred alternative.

Commenters requested BPA reconsider route segments in Oregon, perform an environmental review or supplementary draft EIS of the Pearl routes and remove segments from Clark County.

Commenters asked why BPA eliminated the Pearl routes from consideration as they believed they would impact substantially fewer landowners and fewer parcels of land. Commenters said the reasons BPA provided in its Agency Decision Framework for not considering the Pearl routes are just as valid as the reasons for not using the Troutdale routes, and that issues along the Pearl routes pose the same risks as the alternatives considered in the draft EIS.

Additionally, commenters questioned why BPA had not selected the West Alternative as its preferred alternative, because part of the decision to eliminate the Pearl routes was because they did not offer an option using an existing right-of-way. Commenters said this reasoning was inconsistent with BPA's selection of the Central Alternative as its preferred alternative.

Commenters said that the reasons for eliminating Pearl route alternatives, particularly the additional time required to evaluate the routes for the draft EIS and potential affect on the project schedule, were inconsistent and flawed. Additionally, commenters questioned why the Pearl alternatives were not included in Chapter 2 of the draft EIS. Commenters felt BPA chose to eliminate the Pearl routes to reduce overall staff workload, reduce public or governmental resistance to the routes and expedite the environmental review process.

Commenters believed that the pros and cons listed in the Agency Decision Framework for eliminating Pearl routes were "biased and led to a predetermined decision" and the Oregon routes were dismissed without "merit or due process." Commenters requested BPA provide further information on cost, wildlife impacts, timber lands, impacts to home owners and landowners, condemnation of homes, NEPA schedule, substation and line constraints, tower heights, the Columbia River crossing at Longview, complications with existing 500-kV lines and issues with rebuilding lines for the Pearl route alternatives.

Commenters wanted to better understand why BPA decided that the Pearl routes would not meet the project's stated purpose and need, particularly if the need for the project was driven by local load growth in Oregon.

Commenters requested BPA include a discussion of citizens' requests for BPA to review Oregon routes in the summary chapter of the draft EIS.

NORTHEASTERN ALTERNATIVE (GREY LINE)

Commenters asked BPA to reopen the scoping period to fully consider a northeastern route, referred to as some community members as the grey line. Commenters said this would affect fewer homeowners and private landowners in Washington, avoid populated urban areas in Castle Rock, Camas, Washougal and Troutdale and provide room for future expansion.

Commenters said BPA had not provided a sufficient explanation for why a northeastern route was eliminated, questioning the costs for mitigating wildlife habitat and stating that BPA "distorted the home counts and number of properties potentially impacted."

Commenters identified studies conducted on the economic and human impacts from the project, including discussion of the northeastern and Pearl alternatives and reasons for selection of the preferred alternative over the Central Alternative. Additionally, commenters noted that despite the higher cost of

constructing a northeastern route, compared to the Central Alternative, it would cause lower economic impacts to rural communities.

Commenters said that if BPA continued to implement non-wires solutions, there would be time to evaluate a northeastern route for the final EIS, to reduce impacts to communities, schools and individual property owners in Clark and Cowlitz counties. Commenters also believed that BPA could have adequately evaluated a northeastern option in the draft EIS without an impact to the project schedule.

Commenters thought that since BPA has identified the most northern proposed substation site as part of its preferred alternative, a more northeastern route should be an acceptable alternative.

UNDERGROUNDING

Commenters requested BPA place the transmission line underground, instead of overhead on towers. Reasons for undergrounding the transmission line included aesthetics, noise, improved reliability/decreased outages, decreased impacts on home values, decreased risk of terrorism and narrower easements.

Commenters said that the EIS should include a study of burying the line underground for short distances in populated areas, specifically in the Camas, Washougal and Castle Rock urban areas. Commenters also requested that BPA comply with the City of Camas ordinance for building new transmission lines underground within its urban area.

Commenters identified reports and studies of undergrounding transmission lines, and identified other states and countries where transmission lines have been placed underground.

Commenters noted that while undergrounding lines may be more expensive up front, short segments of the line could be placed underground to mitigate visual, social and economic impacts to urban areas, including Camas and Washougal. Additionally, commenters felt that the draft EIS does not adequately consider undergrounding short distances of the line because it relies on short-term costs, does not provide an adequate cost analysis and focuses on undergrounding the entire transmission line.

Commenters requested that BPA analyze and study undergrounding Segment 52 of the transmission line within the urban area of Washougal and Camas, including a cost analysis and impact on the total project budget.

Commenters discussed the greater potential for damage and increased costs of repair of above ground transmission lines compared to underground lines due to extreme weather conditions, including hurricanes and storms. Others said although undergrounding the lines would minimize visual and safety risks, it would not reduce taxable assets and would potentially increase health risks from EMF due to closer proximity of households to buried lines.

Some commenters suggested encapsulating the lines above ground if they could not be placed underground.

TROJAN NUCLEAR PLANT

Commenters asked for further explanation and analysis of why the existing Trojan Nuclear Plant's right-of-way and 230-kV transmission lines could not be used or upgraded for the project. Commenters also said this route should be considered as the preferred alternative as it would affect fewer landowners and homeowners than the Central Alternative.

I-5 HIGHWAY MEDIAN

Commenters said placing the line alongside the Interstate 5 (I-5) freeway would cost less, be more direct, provide easy access, minimize visual impacts, impact fewer landowners and disturb less forested land.

Commenters said the draft EIS does not identify or analyze potential new safety hazards for motorists or why safety hazards were the reason for eliminating the I-5 route from further consideration.

LOWER VOLTAGE LINE UPGRADES

Commenters asked why the existing 230-kV line in Longview and 115-kV line in Oregon could not be upgraded to a 500-kV transmission line, and why these options were not included as alternatives in the draft EIS.

TRANSMISSION LINE ROUTES EAST TO BONNEVILLE DAM

Commenters requested BPA reconsider a route that avoids the Camas and Washougal urban areas by siting the line further east and crossing the Columbia River at Bonneville Dam. Additionally, commenters requested this be considered as part of the northeastern route and for BPA to use existing right-of-way across Bonneville Dam.

NEW ALTERNATIVE SUGGESTIONS

Commenters asked why the existing 230-kV transmission line along the West Alternative could not be upgraded to accommodate double or triple-circuiting, to mitigate effects and reduce the number of wetlands impacted by the project. Commenters requested BPA study the option of double or triple-circuiting on the West Alternative, suggesting it would be the “most logical, cost-saving, environmentally and humane thing to do.” Additionally, commenters said it would cause zero long-term net loss of wetlands, reduce health risks from EMF, meet the project need, use fewer towers, cost less, impact fewer landowners and remove less vegetation.

Commenters said that compared to all other alternatives, double-circuiting along the West Alternative would minimize impacts on the environment, landowners, visual resources and costs. Some said that by choosing the double-circuiting option with the least impacts, BPA would gain the goodwill of the majority of residents, particularly those in rural Clark and Cowlitz counties.

Additionally, commenters noted that considering the double-circuiting option would be consistent with Cowlitz County's Comprehensive Plan, which states that any expansion of transmission lines should adhere to its guidelines, and emphasizes doubling of uses for utility rights-of-way to minimize impacts.

Commenters stated that BPA chose the Troutdale route alternatives over the Pearl route alternatives because Troutdale has an existing right-of-way, so therefore BPA should consider the option of double-circuiting on the West Alternative using the existing right-of-way. Commenters also questioned BPA's reliability concerns of double-circuiting on the West Alternative stating that there has not been a "reliability problem based on the 70-year history of the transmission corridor."

Commenters asked why BPA did not consider installing double-circuit towers on the West Alternative, despite public comments received since the start of the scoping period that recommended studying this option. Commenters also said that the reasons for not considering double-circuiting should be outlined in the draft EIS, as required by NEPA. Additionally, some commenters questioned why no records or documents were provided under a Freedom of Information Act request for information and studies on double-circuiting, if public comments had previously been received by BPA on the topic.

Commenters insisted that BPA apply for a permit from the U.S Army Corps of Engineers (Corps) for double or triple-circuiting on the West Alternative, through sensitive wetlands or the entire length of the line.

Commenters requested that the final EIS provide additional information about the types of towers proposed for installation within wetland areas on the preferred alternative, and a discussion of the potential for using double-circuit towers to reduce impacts to wetland areas.

Commenters referred to other states and agencies using double-circuit transmission towers in existing rights-of-way, specifically a Southern Cal Edison project in California and projects in Canada. Commenters also identified BPA transmission line projects where double-circuit towers have been used, specifically McNary-John Day and Central Ferry-Lower Monumental.

PROJECT DESIGN

PROJECT COSTS

Commenters raised concerns about the overall costs of the project and use of taxpayer funds. Commenters identified data in the draft EIS to compare costs of each alternative with the intent to encourage selection of the least costly alternative.

Others said that BPA is only considering the short-term costs to the agency, not the long-term costs to communities, people and households affected by the project. These commenters said the decision should be based on considering human impacts, not the bottom line cost. Additionally, commenters said the project cost will be higher in the long-term due to ongoing and additional maintenance costs.

Commenters requested that BPA further consider the cost implications of the project, particularly the increased energy costs of building the line. Commenters also stated that the project creates disproportionate burdens to communities and ratepayers in Clark and Cowlitz counties that may not benefit from additional power the line is transmitting.

Commenters questioned the quality of analysis in the draft EIS, stating there is no information on the methodology or assumptions made to calculate the cost estimates for each alternative.

Commenters encouraged BPA to progress with the project, as delay only adds to the overall cost.

Also refer to “Socioeconomics,” “Property Issues,” “Visual Resources,” “Project Purpose and Need” and “Action Alternative Segments” sections for further discussion on project cost and cost to landowners.

SUBSTATIONS

Commenters said the draft EIS does not explain why the Casey Road substation would be built over two, non-fish bearing streams and how this would be done. Commenters requested further information in the final EIS including a site diagram showing how the substation is proposed to be built in relation to the streams and all possible alternatives to building over the streams.

Commenters said that BPA began acquiring land needed for the Sundial substation site before the scoping process began.

REGIONAL ENERGY GENERATION AND TRANSMISSION

Commenters identified existing and future wind energy sites that could be affected by the project.

Commenters questioned what effect other planned private and public regional transmission projects would have on delaying the project and need for the line, including the Portland General Electric (PGE) new 220MW power plant in Clatskanie, Oregon, and a Memorandum of Agreement between BPA and PGE for modifying the Cascade Crossing 500-kV line. Commenters also asked if there are other planned projects which may impact the reliability and timing to reinforce the grid.

Commenters said the draft EIS does not assess impacts to lost wind power opportunities in the project area, including mineral extraction, geothermal energy development and how the right-of-way may limit access or transportation around energy sites.

Others requested BPA undertake a programmatic review of the cumulative impacts of large scale energy development projects throughout the region, including new energy sources that would be accommodated by the project and a determination of the long-term capacity of the grid.

TRANSMISSION TOWERS AND CENTERLINE

Commenters suggested specific adjustments to towers and re-alignments to centerlines on or near properties to avoid houses, neighborhoods, water service areas, building structures, wells, wetlands, watersheds, fish, water sources, riparian habitat, gardens, wildlife habitat and vegetation. Commenters requested BPA consider all submitted re-alignment suggestions and work with landowners to discuss property impacts and potential re-alignments to minimize property impacts.

Commenters described the history and use of their properties, and how the placement of towers and transmission lines would directly affect their land use, businesses, property values, viewsheds, aesthetics, security, mineral rights, waterways, quality of life and historical and cultural aspects of their properties and communities.

Commenters expressed preferences for placing transmission towers and centerlines away from wetland corridors, riparian zones and habitat preservation areas along the preferred alternative. Additionally, commenters suggested elevating towers in areas along the preferred alternative could help maintain shade, vegetation and health of ecosystems, wetlands and riparian areas potentially affected by the right-of-way and towers. Commenters also requested BPA protect private landowners and small tree farms by placing the transmission line and towers on public owned WDNR land. Commenters expressed preferences for placing towers and lines on larger landowner parcels, and minimizing affects to smaller, private landowners.

Commenters identified locations where the preferred alternative transmission line and towers would bisect their properties, creating stranded use of their land and restricting timber production. Commenters also identified the specific amounts of acreage on their properties that would be directly affected by the preferred alternative transmission lines, right-of-way and towers.

Commenters living near existing transmission line rights-of-way said the preferred alternative transmission right-of-way and towers would create additional undue burdens on small landowners and timber farmers.

Commenters described locations along the preferred alternative where it would be difficult to construct towers due to steep hillsides and soil instability.

Commenters requested BPA avoid placing transmission towers and lines in habitat preservation areas and known priority habitat locations. Commenters also requested BPA use areas that have already been cleared or logged, particularly in forested lands.

Commenters said the draft EIS does not identify the exact placement of the tower on the Columbia River, nor analyze impacts to aquatic resources on state-owned land.

Commenters requested BPA use standardized survey identifiers in the final EIS to determine exact tower placements.

Commenters asked about specific tower locations and whether they would have obstruction lighting or marking on them.

Also refer to “Mitigation Measures,” “Property Issues,” “Visual Resources,” “Socioeconomics,” “Land use and Ownership” and “Siting and Segment Development” sections for more discussion on transmission towers and centerline.

ACCESS ROADS

SITING AND DESIGN

Commenters described specific adjustments that could be made to access roads on or near their properties to minimize negative effects to their properties, and avoid impacts to homes, wells, gardens or other vegetation, parks, walking trails, streams, driveways, wetlands and buildings. Commenters described locations that would be difficult to access due to steep hillsides. Commenters also identified locations where proposed access roads would bisect their properties, creating stranded islands of land and restricting timber production.

Commenters identified locations where roads identified in the draft EIS actually do not exist or are inadequate or inappropriate for heavy equipment. Commenters described specific areas where improvements will need to be made to existing roads proposed for the project.

Commenters recommended that access roads for the preferred alternative should avoid stream crossings where feasible, use existing roads where possible and avoid areas of high habitat value and residential areas. Additionally, commenters stated preferences for using existing public roads as alternatives to using private roads or placing access roads through private properties, particularly where roads on WDNR land are available.

Commenters identified existing property and access roads in the project area that are used by informal recreational users and local community members, which may be affected by controlled access points (gates and barriers) added because of the project.

Commenters raised concerns about the potential for new access roads to contribute to habitat fragmentation, wildlife disturbance, and the introduction of non-native vegetation and noxious weeds.

Commenters questioned why proposed access road locations had not been revised or updated for the draft EIS since the November 2010 access road map even though BPA had received feedback and suggested revisions from the public.

CONSTRUCTION

Commenters expressed concerns about increased unauthorized use, spread of noxious weeds and sediment delivery to streams through temporary and permanent roads running parallel or within the transmission right-of-way. Commenters said temporary roads parallel to the right-of-way are not addressed in the draft EIS, and requested BPA develop best management practice plans for mitigating potential effects from temporary roads. Additionally, commenters said construction and maintenance of new and temporary access roads contribute more sediment to streams than any other management activity.

Commenters identified specific road construction and maintenance standards and requirements that BPA should adhere to, specifically the Washington State Forest Road Best Management Practices guidelines. Additionally, commenters asked BPA to compare road standards between the Washington State Forest Road Best Management Practices and BPA's 1987 access road planning and design manual standards.

Commenters asked when and what times of the day access roads would be used during construction and when the heaviest traffic periods would be.

Commenters requested that in areas managed for wildlife, access road construction include:

- Additional access control
- Erosion prevention
- Management of water control structures at stream crossings
- Management of vegetation buffers to conceal big game or other wildlife
- Monitoring and enforcement of disturbance to wildlife

NUISANCES AND MAINTENANCE ISSUES

Commenters said that access roads attract multiple nuisances, including trespassing, vandalism, criminal activity, drug operations, theft, transient/homeless use, trash dumping, game poaching, shooting and off-road vehicle use (all-terrain vehicles and motorcycles). Commenters said that home and property security could be affected by access road misuse. Commenters noted that building new roads will open undisturbed lands to nuisance uses. Commenters also were concerned that access roads would alter rural qualities of life and reduce property values.

Commenters said BPA should be responsible for all costs from maintenance, wear and tear and improvements to any access roads used for the project.

Commenters requested that BPA enter into mutually agreed upon standards or contracts with affected landowners that address the following:

- Managing and controlling short and long-term impacts of unauthorized public use
- Inspection and maintenance schedules
- Reporting requirements
- Maintenance standards
- Road construction

- Abandonment standards
- Cost sharing
- Landslide potential
- Planning and coordination of road use
- Road improvement standards
- Controlled access points (gates)
- Damage assessments
- Landowner notifications for road blockages
- Coordinating security and with law enforcement
- Bridge load capacity
- Wet weather operating plans

MITIGATION MEASURES

Commenters discussed the adequacy of mitigation measures for access road impacts in the draft EIS, and suggested many additional measures to be included in the final EIS.

Commenters provided specific recommendations for access road design, road surfaces, drainage structures, bridge inspection programs, vegetation control, rehabilitation of roads, sediment delivery control, and ditch, culvert and bridge designs for crossing fish-bearing streams and timber haul roads.

CONSTRUCTION

GENERAL

Commenters suggested additional mitigation measures and requested information in the final EIS about construction of the project including:

- Temporary roads and the need to mitigate potential impacts
- Pulling and tensioning sites, staging areas, and other offsite temporary use and disturbance locations to be identified and reviewed with landowners prior to the commencement of construction activities
- Ensuring access to a public boat launch and parking facility at Lake Merwin is maintained during construction of the project
- Following safety requirements of large landowners when onsite

Commenters requested BPA coordinate with large landowners about construction and timing, particularly if other infrastructure projects may be in the construction phase at the same time as the I-5 project.

Commenters requested further clarification of construction methods, particularly what existing facilities may be removed or rebuilt during construction of the preferred alternative, and requested BPA work with the facility owner to develop an agreement on actions.

DANGER TREES AND REMOVAL

Commenters expressed concerns about danger or “hazard” tree removal within certain distances from the transmission corridor right-of-way, specifically for forested lands and tree farms. Commenters stated that landowners should not be held liable for any damage or interruption of service if a danger tree impacts the transmission corridor.

Commenters expressed concern that danger trees will be cut and removed prior to coordination with the affected landowner. Commenters requested that BPA reimburse landowners for danger trees removed outside of the right-of-way, based on their value at maturity.

Commenters requested analysis in the final EIS about the amount and location of danger trees that would require removal from the preferred alternative.

MAINTENANCE

VEGETATION CLEARING

Commenters expressed concerns about maintaining vegetation with transmission line rights-of-way. Commenters identified areas along the West Alternative that are prolific with invasive species, particularly blackberry bushes along Segment 52.

Commenters requested further analysis in the final EIS on vegetation management and control and eradication of noxious invasive weeds for the project, using existing corridors in the area that are similar to and representative of, the preferred alternative. Commenters also requested BPA include a mitigation measure to ensure funding of right-of-way corridor vegetation control proportionate to the predictable weed problem.

TRANSMISSION LINE AND ACCESS ROADS

Commenters requested that BPA contribute annually to the maintenance of access roads for the project in the form of materials, equipment, time or funding. Additionally, commenters requested BPA adopt a road system security plan to address long-term impacts of maintenance activities, facility upgrades and public trespass caused by the new right-of-way.

MITIGATION AND MONITORING

GENERAL

Commenters addressed a variety of mitigation and monitoring measures for the project. Commenters asked how BPA will mitigate for impacts to communities, wetlands, water sources, water quality, vegetation, geology and soils, ecosystems, wildlife, threatened endangered special status species and their habitats, fish and fish habitat. Commenters also asked what mitigation methods could be used to conceal the visual and aesthetic impacts of transmission lines along the preferred alternative and reduce effects to property values and land use.

Commenters said BPA should recognize that the Camas and Washougal areas bear the brunt of the regional transmission system, and it is "unacceptable to have that remain unmitigated." Commenters requested that BPA work with the City of Camas, City of Washougal and the homeowner associations of housing developments that may be directly affected by the preferred alternative, to determine appropriate mitigation methods.

Commenters suggested BPA improve or invest in public services and community infrastructure in communities and neighborhoods which will be directly affected by the preferred alternative to balance potential loss of assessed value and enhance livability of the areas impacted. Examples included investing in parks, playgrounds, soccer fields, trails, paths, scenic by-ways, native vegetation and swimming facilities. Additionally, commenters requested BPA prepare a Mitigation Action Plan to involve local officials in the process of preparing mitigation measures for communities impacted by the project.

Commenters requested that BPA not limit mitigation to environmental impacts, but also consider human and social impacts and mitigate impacted landowners, neighborhoods and communities affected by the project. Additionally, commenters requested mitigation for losses in tax revenue, permanent land use, property value, business revenue and development opportunities caused by the preferred alternative.

Commenters questioned the use and effectiveness of mitigating for impacts to resources permanently affected by the preferred alternative, including streams, fish habitat, groundwater, vegetation, forest lands and viewsheds. Commenters questioned the validity in assuming all environmental and social impacts can be mitigated, particularly in rural areas along the preferred alternative where new right-of-way would be required.

Commenters requested BPA work with property owners, industrial forest landowners, counties, state and federal agencies to address and mitigate impacts in a standardized approach. Additionally, commenters requested BPA coordinate with Clark and Cowlitz counties on wetlands, riparian zones, special status species and forested habitat mitigation in accordance with county ordinances, and mitigate for these impacts occurring in the county boundary and not elsewhere in the region.

Commenters suggested relocating part of Segment P further onto state-owned WDNR land, away from private homes and landowners, which would require less mitigation of impacts to wetlands, riparian zones and private properties. WDNR comments supported this suggestion, and requested BPA mitigate the impact of relocating this part of the line, by establishing a buffer between private property boundaries and the right-of-way, and compensating WDNR for the additional width of land.

Commenters said the draft EIS does not address the following measures:

- Mitigation if a landslide occurs by the construction of the transmission line
- Mitigation for lost numbers of endangered species and their habitats
- Mitigation for helping communities deal with permanent impacts from the project
- Mitigation for contaminated soils disrupted during construction

- Mitigation for the retention of forestland, wetlands and habitat types, as actual amounts and impacts are unknown in the draft EIS.
- How mitigation measures proposed may not be effective in addressing cumulative impacts of the project

Commenters suggested additional mitigation measures be included in the final EIS and requested BPA:

- Mitigate for stream crossings by purchasing intact shoreline for habitat and public recreation
- Provide acre for acre habitat for the impact of the preferred alternative
- Provide compensatory mitigation for unavoidable losses to aquatic resources and priority habitats, in advance of the impacts to avoid temporal habitat losses
- Develop an aquatic resources and wetlands mitigation plan
- Provide long-term funding available to deal with noxious weeds and invasive species
- Salvage large trees, stumps, and root wads for use in unrelated mitigation projects for wetland and stream impacts
- Identify any potential areas of contamination and mitigation actions for the Reynolds Metals Superfund site as locations for project facilities are finalized
- Work with private industrialized forestland owners and Washington Department of Fish and Wildlife to develop appropriate mitigation measures for impacts to wildlife and fish habitat on impacted lands
- Form a committee composed of WDFW, WDNR, industrial forest land owners, U.S. Fish and Wildlife Service, the Corps, the National Oceanic and Atmospheric Administration, the Lower Columbia Fish Recovery Board, and BPA to address the impacts of the proposed transmission line.

AFTER CONSTRUCTION

Commenters described their experience with managing existing transmission line corridors on their properties. Commenters said that environmental impacts last beyond construction of the transmission line and in many instances can be perpetual, therefore mitigation for any operation and maintenance activities should be long-term and over the life of the project. Additionally, commenters requested BPA provide appropriate mitigation funding for long-term maintenance of any mitigation sites for the project, specifically maintaining suitable nesting and foraging habitat for wildlife on the right-of-way.

Commenters specifically asked where in the draft EIS it includes assurances that all mitigation measures will be maintained and implemented for the life of the transmission line and project.

Commenters requested BPA prepare a site restoration plan with details for restoring sites at the conclusion of the project's operating life.

LAND USE AND OWNERSHIP

EXISTING AND PLANNED USE

Commenters identified existing land uses within the project area which could be impacted by any of the route alternatives including areas with:

- Current and historic agriculture, farming and livestock lands, including growing and harvesting timber
- Current residential developments, including subdivisions, rural homes, and vacation and retirement homes
- High performance horse training
- Commercial developments
- Lodges and nature retreats
- Educational facilities including schools and daycare centers
- Recreational land uses
- Scenic byways
- Conservation sites
- Gas pipelines
- Significant natural resource values for hydrologic function, water quality, and fish and wildlife habitat

Commenters also identified areas with specific land use designations and planning efforts which could be potentially impacted by the preferred alternative including:

- City of Castle Rock water service and urban growth area
- City of Camas ordinance for placing any new transmission lines underground within the city limits and urban growth boundary
- Areas slated for commercial/light industrial and mixed-use development, notably the Lacamas Northshore area in Camas
- Housing developments
- Educational facilities
- Recreational developments including multi-use trails

Also identified were several existing conservation land use designations on properties within the project area, including open space zoning, conservation easements, conservation covenants and other areas that are protected or where development is limited by existing natural resource value.

Commenters expressed concerns about the proximity of transmission lines on or near their properties, homes and buildings and impacts to them. Commenters questioned how the transmission lines could preclude specific activities on or near their properties. Others expressed concern that transmission lines could impact their home, gardens, orchards or business.

Commenters stated concerns that the project would destroy timber growing potential on a permanent basis, as well as wildlife habitat and future recreational areas. Landowners described the history of their properties and tree farms, many being multi-generational family farms. Commenters suggested BPA place the preferred alternative along parcel boundaries to avoid bisecting a landowner's property, and cutting productive land in half. Others stated preferences for "sharing the burden" and siting the line on public land, not private land. Some commenters identified logged or cleared areas along or near the preferred alternative as alternative suggestions for siting the line. Commenters also identified sustainably forested areas that may have significant natural resource values for hydrologic function, water quality, and fish and wildlife habitat.

Commenters said forest land is among the most valuable land in Washington state and requested BPA prioritize maintaining forest land, mitigating impacts and recognizing state and county statutes of the value of forest land.

Additionally, commenters questioned the compatibility of 500-kV transmission lines and residential neighborhoods. Comments also noted that rural zoned property has specific land use requirements to protect rural land from incompatible uses.

Commenters reminded BPA to follow existing federal, state and local guidelines in the project area, particularly for removing vegetation along fish bearing streams. Commenters said BPA's preferred alternative would be in direct conflict with said regulations.

URBAN GROWTH

Commenters identified areas that have experienced growth or are good candidates for additional growth, particularly with respect to residential development. Commenters with existing building permits were concerned that permits may expire before they can make decisions based on project outcomes, or that they had put their plans on hold due to the project. They also were concerned that the placement of the line would impact their ability to develop or would render their land valueless for future development.

Commenters also identified planned developments at various stages of implementation, including recently built homes and subdivisions. Segment locations included F, 18, 28, 35, 49, 51, 52.

Commenters expressed concern with Segment F currently located through the City of Castle Rock's water service and future urban reserve area. Commenters stated this will significantly affect the development of nearby properties and connections to the new water system, causing stifled growth, fewer homes and less return on investment for the City of Castle Rock. Commenters requested further analysis of these impacts to the City of Castle Rock's water, wastewater and stormwater system in the final EIS. Commenters also suggested BPA provide sufficient funds to calculate the true financial impacts of the transmission line crossing through the urban service area and provide funds to extend the urban services through the point of crossing.

Commenters also expressed concern about the preferred alternative potentially affecting urban growth boundaries in Washougal and Camas, causing communities needing to expand sooner than anticipated to respond to changes in environment, property values and aesthetics.

MINING

Commenters suggested BPA site the line farther east to lower the risk of interference with future mining operations, specifically along Segment F.

GENERAL LAND USE COMMENTS

Commenters provided feedback on the following sections of the draft EIS related to land use: Summary, Chapters 3, 4, 5, 11, 17, 27, 28; and Appendices A and C.

Commenters said the draft EIS under represents the number of schools and daycare facilities in proximity to all action alternatives by counting only buildings located within 500 feet, not playgrounds. Camas High School's playfields located 400 feet from the West Alternative were specifically noted.

Commenters also stated that the draft EIS does not fully consider how the preferred alternative will impact and constrain timber harvesting on lands adjacent to the right-of-way, due to safety risks involved with working around high voltage transmission lines.

Commenters said that the draft EIS fails to disclose that the West Alternative will conflict with standards set forth in the Washington State Shoreline Management Act for placing new utility electricity lines underground in established residential areas.

Commenters felt the draft EIS does not adequately consider future residential and commercial development within 500 feet of 500-kV power lines. They recommended that the final EIS include an analysis of population and employment forecasts within affected Urban Growth Areas.

Commenters expressed concern that the draft EIS does not adequately address impacts to existing rights-of-way and electrical infrastructure that may be impacted by the preferred alternative.

Commenters disagreed with BPA's analysis of land use impacts in the draft EIS, stating that it fails to identify an existing high performance horse training facility, particularly on Segment F. Commenters said the location of the preferred alternative transmission lines would not be compatible with the horse training facility, severely impairing the use of the property and business.

Commenters requested adjustments to the draft EIS to correct the location and inform discussions for the Forest Riparian Easement that is impacted by all options of the West and Crossover alternatives. Commenters also requested additional mitigation measures be provided for the loss of conservation easements and habitat including replacement land or stream enhancement.

Commenters said the draft EIS does not satisfy NEPA's requirements to adequately identify and evaluate project impacts and to discuss mitigation measures for those impacts, particularly on existing and planned land uses in Camas.

Commenters said the draft EIS does not analyze impacts to WDNR's ongoing land transactions that include the potential redistribution of lands based on current or future opportunities. Commenters requested more information on mitigation measures indicating how compensation amounts will be established for landowners who suffer a loss of value due to severance, restricted use or negative impacts of the property.

Commenters requested further information and analysis on topics in the final EIS including the following:

- The compatibility of locating towers and access roads in proximity to existing gas pipelines (Williams Pipeline) in Cowlitz County
- Harvest restrictions to forest landowners and impacts for the project on residentially developable land
- Reference to updated versions of the Clark County, Vancouver and Camas Shoreline Management Plans
- The effects on WDNR licenses, leases and easements and information about lost revenue to the state
- The proposed location of the Sundial Substation and possible impacts to existing adjacent transmission lines
- The proposed location and potential impacts of Segment L to the Merwin Dam and Lewis River Hydroelectric Project, and wildlife habitat lands managed by PacifiCorp and overseen by the Lewis River Terrestrial Coordination Committee
- Acknowledgement of a 21-acre habitat restoration site along Company Lake and clarification that the proposed project will not impact the easement area
- The impacts to listed threatened and endangered species in the project area and to the integrity of WDNR's Uplands Habitat Conservation Plan
- Impacts the preferred alternative will have on future harvest schedules and timber revenues for the City of Camas in the forest management area near Jones Creek and Boulder Creek watersheds

Commenters requested specific agreements be provided as an appendix to the final EIS, namely the Memorandum of Agreement between WDNR and BPA for managing impacts to state lands from BPA access roads and easements.

Commenters requested that recommendations put forward by WDNR to manage impacts from the project also be also considered and applied to small, private forest owners impacted by the preferred alternative.

Commenters requested additional mitigation measures be considered to include areas outside the typical 150 foot right-of-way that BPA will need to control to protect its transmission line including extended distances of clear safe backlines.

PROPERTY ISSUES

EXISTING REALTY ISSUES

Commenters discussed a variety of realty related issues currently existing in the project area.

Commenters discussed the costs of the salability of property and homes with a transmission line on or near properties. Commenters stated that the project has negatively affected Clark and Cowlitz county housing markets, particularly in areas where the transmission line may be located, due to the impending possibility of a transmission line being placed on properties or near houses. Commenters said the disclosure requirements for real estate transactions have impacted property values and the salability of properties in the project area because of the impending transmission line.

Commenters expressed frustration with the length of time the decision process has been taking, stating that their properties have been "held hostage" and "tied up," causing stagnant real estate values, difficulty in selling homes and additional families being upside-down with their mortgages. Property owners also said that they have put building and retirement plans on hold due to an impending decision on where the transmission line would be constructed.

Commenters discussed the current state of housing developments and vacancy rates in areas impacted by the preferred alternative, expressed concern for areas with low-medium income families residing along proposed alternatives, and noted that urban areas would become more "depressed" because of the project affecting property values.

PROPERTY AND EASEMENT NEGOTIATION

Commenters expressed their concerns about the process by which BPA would assess property value and compensate landowners for easements on their properties. Commenters said that compensation at "fair market value" in a down real estate market will impact the investments made in their properties and the local community and economy. It would not allow them to procure a similar property or maintain a similar standard of living. Commenters also questioned the process, stating that fair market value "can only exist between a seller who is ready, willing and under no duress and a buyer who is ready, willing and under no duress." Some commenters suggested fair market value should be calculated based on the property devaluation of the line impacting aesthetics, quality of life and viewsheds. Commenters expressed frustration with the compensation process, stating that BPA is forcibly taking their land and not considering landowner's rights and future plans for their properties.

Commenters expressed concerns that property owners will only be compensated if the preferred alternative towers, transmission line or access roads are located directly on their land. Commenters questioned what form of compensation is given to property owners trying to sell properties located in proximity to the lines. Commenters also asked if properties located close to the preferred alternative would be reimbursed for any loss of business or loss of income because of the project.

Commenters raised concerns about liability from any injuries or damage caused by transmission infrastructure, along with fires caused by vandalism or unauthorized access. Commenters asked if BPA or the landowner is liable for any third party damage caused by transmission lines or towers.

Owners of timber farms requested the option of leasing BPA easements on their land instead of receiving a one-time payment for the value of the timber forgone, due to the loss of land from the right-of-way, loss of future income and ongoing, ad-hoc costs incurred. Commenters stated one time payments are "inadequate and impractical."

Commenters suggested examples of calculating the value of timber land for an ongoing lease at a per acre value to reach an equitable and fair agreement on an individual basis. Landowners said there are differences in values of timber between small, private tree farmers and large tree farmers or federal and state tree farmers, and each should be valued on an individual basis.

Commenters also raised concerns about compensation for any land taken out of timber production, beyond the 150 foot right-of-way. Commenters requested more clarity on BPA's policy for compensation for loss of revenue generated by a renewable resource (forest and timber land), stating that compensation should recognize the future value of the resource.

Landowners impacted by the preferred alternative stated that compensation would not mitigate permanent impacts to their land and loss of timberland, which would cause disproportionate impacts to small landowners on the preferred alternative. Commenters questioned the method and quality of analysis for calculating stumpage value, average timber value and loss of production value used in the draft EIS for comparing the alternatives. Commenters requested BPA use current stumpage values when appraising timber land or negotiating easements in the future.

Commenters stated that the placement of an easement restricts the highest and best use of the land, reducing the market value of the property and future land use development plans. Commenters said that the draft EIS does not adequately address how compensation will be applied for restrictions to land or negative impacts including loss of viewsheds that should be accounted for. Additionally, commenters requested that BPA compensate for both project impacts and future opportunity loss for the land.

Commenters questioned why the draft EIS identifies and evaluates present value and cost to timberlands and agricultural crops, but does not identify forgone losses to other lands, buildings or other classes of lands that may be impacted by new or additional rights-of-way. Commenters had a variety of requests relating to compensation and property negotiations including the following:

- BPA work with every individual landowner and affected property owners on a one-on-one basis to negotiate reasonable and generous compensation for any losses from the project
- Compensate those landowners who have been "tied up" for carrying costs
- Reimburse property owners for impacts to their viewsheds and amenities which would be affected by the project
- Compensate property owners impacted during construction, particularly related to the use of and damage to private roads

- Provide adequate compensation for having to relocate and reestablish businesses to a more suitable location that would not be directly impacted by transmission towers or lines
- Establish a regional land exchange process to compensate timberland owners, such as "creating a federal land and timber bank"
- Treat landowners fairly and equally as they have been treated on previous BPA projects, specifically the pilot program introduced for the Big Eddy Knight project

Commenters submitted articles about easement negotiation and compensation for towers and transmission rights-of-way. Commenters also identified initial and ongoing considerations for timber leases or property negotiations including the following:

- Reimburse for future value of any danger trees removed
- Arrange a property line survey to landowners
- Maintain all roads and cooperating with the landowners
- Suggest that a lease should exist for the life of the transmission line
- Request that BPA pay additional property taxes
- Determine an agreement with landowners about maintenance notification
- Reimburse for any damage during construction
- Request BPA define all temporary use areas prior to landowners signing an easement agreement
- Compensate for long-term economic impacts to harvest restrictions

EMINENT DOMAIN

Commenters identified their property locations, asking where the transmission lines would be built and if their properties would be condemned. Commenters asked if BPA would purchase impaired properties, or force landowners to relocate without compensation.

Commenters questioned the process for condemnation of properties, particularly how a "good faith" negotiation is determined. Commenters wanted to know what the process was for appealing a decision if a property owner disagrees with the terms of the negotiation.

Commenters discussed their desire to not move from their homes or properties. Commenters stated relocation was not a valid option due to the state of the economy.

Others said if the preferred alternative was built, some businesses would be forced to relocate as the transmission lines and towers would be detrimental to their business, the community and livelihood. Additionally, commenters requested BPA to compensate them by relocating their properties or affected businesses elsewhere due to the project impacts.

PROPERTY VALUES

Commenters said a transmission line sited on or near their property would lower their property values due to aesthetic, noise, environmental and perceived health effects. Commenters identified their locations in proximity to the preferred alternative and their concerns for property and aesthetic devaluation.

Commenters said BPA should compensate landowners based on historic property values before the project was announced.

Commenters suggested siting the line farther east in less populated areas, reducing impacts to property values, landowners and health effects, particularly in populated areas. Others stated that properties located along the existing right-of-way have already been compensated for loss, whereas impacts to property values would be greater along the preferred alternative where new right-of-way is required.

Commenters also said that EMF exposure would impact property values for those properties located on or in proximity to the lines. Additionally, commenters expressed concern that banks may not provide loans to properties located near or close to high voltage transmission lines due to potential EMF.

Commenters discussed the process for assessing the value of a home, stating that viewsheds contribute and influence property values and should be considered in the value assessment process.

Addditionally, commenters expressed concern about increase in property taxes from impacts to property values.

Commenters stated that the draft EIS does not adequately analyze the potential impacts to property values for those properties and neighborhoods located on or near the four action alternatives, despite receiving many comments and concerns from landowners since the beginning of the project.

Commenters discussed three of the property value studies identified in the draft EIS, questioning the quality of analysis and relevance to the project area. Commenters requested specific property value impact analysis for areas directly affected by the project. Other commenters raised concerns about the variability in statistics reported in national property value studies of properties with or near high-voltage transmission lines, questioning the validity of BPA's assessment of potential impacts in the draft EIS. Some commenters stated that the draft EIS fails to report other studies qualifying impacts of up to 10 percent.

Commenters requested further analysis and information about why BPA does not provide compensation to property owners adjacent to, and near transmission lines, despite property value study reports indicating negative effects from transmission lines.

Commenters said BPA had stripped local governments of the ability to protect property values by disregarding city ordinances in place to construct new transmission lines underground.

Commenters requested BPA minimize property impacts to landowners and protect ratepayers.

For further discussion on property taxes, refer to the "Socioeconomics" section.

UNAUTHORIZED ACCESS

Commenters identified a variety of safety and security concerns and risks relating to how the project may cause unwanted access to properties, causing potential increases in liability. Issues specifically noted included unwanted recreational uses (camping, dirt bike riding, hunting, fires), trespassing, vandalism, garbage dumping, "illegal activities" or theft from increased access to property via roads and cleared rights-of-way. Commenters insisted that these impacts be mitigated, particularly to prevent further uncompensated costs in the future for landowners.

Commenters identified areas of concern along the proposed preferred alternative where criminal activity has previously occurred, including burglaries, theft and garbage dumping. Commenters were concerned these activities may rise in communities due to increased access points along the right-of-way. Commenters suggested that siting the lines farther east would help minimize burglary risk for neighborhoods.

Commenters expressed concerns with potential damage to property, timberland, farms, wetlands, wildlife areas, watersheds, streams and natural resources from increased access and activity from intruders, vandalism and off-road vehicles.

Commenters also identified problems with unauthorized access and shared their experience with existing transmission rights-of-way on their properties. Landowners expressed concerns with cumulative impacts from additional rights-of-way and managing trespass costs from damage to newly planted trees, road surfaces, drainage structures, trash dumping and timber and firewood theft. Additionally, commenters expressed concerns that gates along rights-of-way may not be sufficient to restrict access for off-road vehicles and other users.

Commenters asked what programs BPA has in place for liability claims from personal injury. Commenters requested that BPA be held responsible or liable for damage to property or a person that might occur from the project, not the landowner. Commenters said that Chapter 5 of the draft EIS does not identify the misuse of public land or trespassing of private land and associated impacts to noise, erosion, wildlife and spread of noxious weeds, nor provide mitigation measures to address these impacts.

Commenters disagreed with the impacts analysis in the draft EIS, stating that impacts from unauthorized access, particularly along the preferred alternative, should be considered moderate to high.

Commenters identified and requested specific recommendations for managing safety and unauthorized access on private land and tree farms via roads and rights-of-way including the following:

- Implement safety plans to control trespass, intrusion and vandalism or cooperative agreements between the landowner and BPA
- Install gated year-round gravel roads
- Install additional barriers at gates and other areas
- Implement security measures and road use agreements
- Ongoing review of plans

- Build and maintain adequate gates
- Implement no trespassing signage
- Regularly inspect damage and
- Notify landowners of damage to private and public property
- Provide on the ground BPA security

Commenters also requested a sample survey of unauthorized access on existing rights-of-way, in order to inform impacts on landowners' properties.

Commenters requested compensation for the life of the easement, for patrolling and enforcing laws and the misuse of vehicles both within and outside the right-of-way.

Commenters reminded BPA that preventing unauthorized access and associated damage would be the most effective form of mitigation, compared to repairing damage when it occurs.

PERMISSION TO ENTER PROPERTY

Commenters stated whether or not they will grant BPA permission to access their properties for project design and survey work.

Commenters said that BPA had accessed private property and gated communities without prior authorization, creating mistrust of BPA in the community.

Commenters referenced an incentive program for accessing private property, used for the BPA Big Eddy Knight project. Commenters requested BPA provide the same resources to the landowners impacted by the I-5 project, as was done with Big Eddy Knight and other BPA projects.

RECREATION

Commenters said that recreational areas could be impacted by the preferred alternative, including fishing and swimming sites, camping and hunting areas, boat launching sites and hiking and equestrian trails. Commenters said the visual and health impacts of a transmission line could discourage use of existing recreational areas by permanently altering the users' experience and natural settings.

Commenters identified the following route segments with recreational areas existing or planned: F, 10, 11, 12, 15, 23, 18, K, P and V. Commenters listed authorized and unauthorized recreational activities on their land that could be impacted by the preferred alternative.

Commenters suggested that a new transmission line could be used to enhance recreation opportunities. Commenters encouraged BPA to coordinate with other government agencies to provide these opportunities. Commenters suggested the development of a multi-use, non-motorized hiking trail be considered to link communities along the right-of-way corridor. Commenters said this could mitigate impacts to recreation, visual quality and socioeconomic impacts.

Commenters also suggested BPA sponsor construction of proposed and planned trails that may be impacted by the preferred alternative as a mitigation measure.

Commenters also expressed concern about the preferred alternative potentially impacting existing and planned recreational activities during construction, particularly in the Yacolt Burn State Forest. Commenters provided feedback on specific sections of Chapter 6 in the draft EIS.

Commenters identified additional existing and planned trails that are not included in the draft EIS which could be impacted by the Central Alternative, notably the Kelso to Kalama Trail, Bells Mountain Trail, a trail between Headquarters Landfill and Longview and others identified in the Western Yacolt Burn State Forest Recreation Plan. Commenters requested these be added to the recreation maps and impacts considered in the final EIS.

Commenters disagreed with the draft EIS assessment of impacts to recreation, particularly the crossing of the Cowlitz River in Castle Rock which states there would be no impact to recreation in this area. Commenters identified this area as one of high recreational use for fishing, boat launching and picnics, and felt it would be significantly impacted by the preferred alternative.

Additionally, commenters said the draft EIS fails to address recreational impacts specific to Castle Rock residents' recreational uses of the Cowlitz River and Regional Trails system. Commenters said that expansion plans for parts of the Riverfront Trail system along the Cowlitz River would be directly impacted by the Central Alternative towers and transmission lines. Commenters requested sufficient funds for mitigating these impacts.

Commenters supported the finding in the draft EIS of high adverse impacts to recreational trails in the Eask Fork Lewis River area between Moulton Falls and Lucia Falls, and to the Chelatchie Railroad trail.

Commenters recommended BPA work with federal and state agencies to determine additional recreational sites and parks not listed in the draft EIS which may be affected by the preferred alternative.

Commenters stated that the draft EIS does not adequately address project impacts to hunting, particularly on large private timberland and impacts during construction. Commenters felt impacts on hunting were significant for the project. Commenters requested further analysis of how hunting would be affected during construction activities, and to clarify peak hunting seasons as fall and winter in the draft EIS.

Others said that the draft EIS does not address project impacts to fishing activities at and downstream of Merwin Dam. Commenters suggested impacts in this area would include loss of ability to launch boats from the Merwin boat ramp, reduced ability to access the area due to loss of parking at the boat ramp, and inability to access prime fishing areas from boats being launched further downstream. Commenters also stated this would prevent PacifiCorp from meeting access requirements in the Federal Energy Regulation Commission Merwin License for the boat ramp location.

Commenters stated the draft EIS analysis of impacts is inadequate in discussing permanent impacts at recreational locations altered by project infrastructure, and should be considered moderate to high. Commenters also requested further analysis of impacts to dispersed recreation from all alternatives, including "changes in access for recreational opportunities, changes in habitat for fish and wildlife, and impacts to activities such as hunting, fishing, geocashing and forest product gathering."

Commenters questioned the draft EIS interpretation of “unauthorized” recreation at the Rock Creek area and Casey Road substation site, stating hunting and recreation are authorized on state-owned land. These commenters requested BPA to consult with WDNR to determine if people are illegally recreating on state property. Others stated that Washington State Department of Fish and Wildlife has entered into agreements with landowners allowing hunting on Wildlife Mitigation Lands in the project area, which should be included in the final EIS.

Commenters also said the draft EIS does not discuss impacts of the project on horses in training, particularly high performance horse training and highly valued show animals. Commenters identified an equestrian facility impacted by the preferred alternative and expressed concern for the future operation of the facility if the project were to be built. Commenters expressed their support for the facility, the trainers and training program at the facility, describing it as an “invaluable resource in the Pacific Northwest.” Commenters also discussed the importance and history of the practice of classical dressage.

Commenters stated that the draft EIS does not adequately address recreation impacts along the East Alternative, most notably the frequency of kayaking along the Canyon River and East Fork Lewis River.

Commenters suggested additional mitigation measures be considered including:

- Investment in formal replacement of impacted recreational sites on state-managed land
- Consult with state agencies and recreational users to identify areas within and adjacent to the right-of-way where recreational access would be compatible or incompatible with lines and roads
- Provide funding for enforcing authorized and unauthorized use (through barriers, signage, education, and enforcement)
- Mitigate for creating dispersion
- Provide sufficient funds to restock the Cowlitz River crossing with salmon and steelhead on an annual basis to mitigate visual, noise and fish habitat impacts
- Provide sufficient funds to construct a trail crossing of Arkansas Creek, as mitigation for causing disruption to the Castle Rock regional trail expansion

VISUAL RESOURCES

Commenters identified visual features and scenic resources of their communities that could be permanently impacted by the preferred alternative transmission lines and towers. Resources included views of area mountains, valleys, ridges, gorges, skylines, sunsets and other natural features.

Comments addressed the aesthetics of the transmission towers themselves, and the visual impact of looking at the towers and/or lines. Commenters also discussed the visual impact on larger areas, especially siting towers in valleys or ridges in the project area that could be seen from longer distances and have the potential to visually impact rural landscape character. Additionally, commenters said towers would not be visible to landowners in the Cowlitz or Yale valleys if placed farther east and away from ridges.

Commenters stated they chose to live in rural landscapes with high scenic qualities and visual amenities, away from urbanized infrastructure. Additionally, commenters living in rural areas said their quality of life and visual amenity should not be impacted by a new right-of-way when an existing right-of-way is available.

Commenters stated that removing trees for the easement would decrease their privacy, affect neighborhood character and increase the visibility of the transmission lines from their property.

Commenters living near existing transmission towers commented on the increased visual impact from taller towers or the placement of additional towers in their vicinity, particularly along segments 25, 49, 51 and 52. Others said that changes that are made along existing rights-of-way or the West Alternative would have less visual impact than construction of a new transmission corridor along the Central Alternative.

Some commenters requested that the line be placed underground for short distances in populated areas, or along the existing right-of-way, to minimize visual, health and environmental impacts.

Commenters discussed impacts to property values from visual impacts of a transmission line, for both directly and indirectly impacted landowners. In some instances, property values are assessed at a higher value based on views from the property. Commenters stated property taxes would be affected by changes to assessed property value. Commenters also discussed their concerns about impacts on property values and the ability to sell homes if a transmission tower could be seen from their property.

In addition to visual impacts on property, commenters also discussed the visual impact to highways and tourist areas designated as “scenic drives or byways,” including State Route (SR) 504; SR 14; scenic routes; and scenic rivers, including the Cowlitz River, East Fork Lewis River and Columbia River.

Commenters also expressed concern about the cumulative visual impacts of wind energy developments and energy infrastructure in the region, particularly in the Columbia River Gorge National Scenic Area and near the Lewis and Clark National Historic Trail.

Commenters also discussed impacts of visual amenity and recreation, particularly stating the different expectations of visual landscapes for people recreating in urban and rural areas. Commenters felt that

scenic qualities throughout the project area are either undervalued or not valued at all in the draft EIS, and therefore the impacts of the project are underrated. Many commenters disagreed with the rating of low visual impact for the Central Alternative, questioning why there would be less visual impact, fewer impacts to scenic quality and lower viewer sensitivity created by a new transmission right-of-way and higher visual impacts on an existing right-of-way (West Alternative). Commenters said that analysis of low-to-moderate visual impact "for a line that cuts between our largest population bases, against a backdrop of the Cascade Mountains and across dozens of major rivers, streams and wetlands needs additional explanation."

Commenters asked BPA to produce additional visual simulations of what the completed project could look like in specific areas to get a better idea of how the project might affect their views and aesthetics.

Some commenters questioned why there are minimal simulation photos along the preferred alternative, and no photos of viewpoints along the Cowlitz River, Castle Rock or Segment F in the draft EIS. Commenters described the photos used as "selective and deceptive," and that BPA made no "serious effort to compare visual impacts" between the four alternatives. Additionally, commenters requested the final EIS include a more detailed analysis of visual impacts and more simulations of vantage points throughout the preferred alternative.

Commenters identified factual errors in Appendix E, specifically the identification of the simulation and viewpoint 52-1, which is named Lewis and Clark Camp National Historic Site in the draft EIS, but should be Parker's Landing Historic Park.

Commenters stated that the visual assessment in the draft EIS does not adequately assess the following:

- Visual impacts to the Lewis and Clark Trail Highway and SR 14 National Scenic Byway
- Visual resources in the Castle Rock area that would be negatively impacted, including SR 504 as a Scenic Byway and sensitive areas on the Cowltiz/Chehalis Foothills ridgeline
- Impacts to the urban area of Washougal along Segment 52, that are "common" to all alternatives, where towers would increase in height and impact the city landscape and viewsheds.

Commenters questioned the validity of the mitigation measure of "siting new towers next to existing towers and using a similar type" in areas where the line will be placed along existing infrastructure in Washougal and Camas.

As an additional mitigation measure, commenters requested the lines in urban areas be placed underground, specifically along Segment 52. Commenters also suggested that the ability of Camas and Washougal to develop the waterfront area would be further impacted by placing more lines along the waterfront. Additionally, commenters identified a study commissioned by the City of Camas which discusses the visual impact of the preferred alternative on Camas.

Commenters requested the final EIS discuss potential impacts to visual resources in Castle Rock as from the preferred alternative, and as mitigation they requested BPA provide funds for constructing new viewing platforms or signage for sensitive view corridors impacted by the preferred alternative.

ELECTRIC AND MAGNETIC FIELDS

Several commenters submitted feedback or questions about EMF from 500-kV transmission lines.

HEALTH EFFECTS

Commenters expressed their concerns about health effects from radiation, specifically concerning children. These included cancers, especially childhood leukemia; diseases such as Lou Gehrig's disease; effects on the immune system; effects on the cardiovascular system; neurobehavioral effects; lymphoproliferative and myleoproliferative disorders; miscarriage and birth defects; sleep disturbances; headaches; anxiety; fatigue; and effects on existing medical conditions and devices, including pacemakers, electronic nerve stimulators and insulin pumps. Some commenters noted that they are sensitive to EMF.

Comments also addressed the health effects of cumulative exposure to EMF from other sources, including appliances, machinery and other transmission lines. Commenters expressed concerns about the placement of lines near homes and schools, as well as driving or walking under transmission lines. Commenters listed several studies that discuss the risks of EMF exposure and suggested specific minimum safe distances. Commenters also discussed the state of science on EMF and the lack of consensus from studies that address potential health effects and risks. Some commenters said that BPA should assume high levels of EMF exposure are harmful to people and "err on the side of caution" until conclusive studies are completed that prove EMF is safe. Commenters suggested that the burden of proof regarding health risks should fall to BPA, and that more studies are needed on the impacts of EMF and human health.

Commenters discussed housing counts in the draft EIS, and the number of houses that would be exposed to the highest levels of EMF within 50 feet of the right-of-way being those along the West Alternative. Commenters said if the West Alternative was selected it would place homes, schools and day care centers at risk of increased levels of EMF. Others said all four route alternatives have unacceptably high levels of EMF and health risks to homeowners along the lines, and the new line should be placed in unpopulated areas.

Commenters also addressed concerns about the effects of EMF on plants and animals, especially sensitive wildlife species such as fish (particularly Chinook, Sockeye). Commenters requested an analysis of the best available science of potential impacts on fish from prolonged exposure to EMF during formation of magnetite crystals, imprinting and a fish's ability to return to the hatchery to spawn, particularly around Segment L and the Merwin Hatchery.

Commenters also were concerned about domestic animals and livestock, including impacts to high performance horses and horse training facilities, due to horses' heightened sensitivity to EMF.

ELECTRO-MAGNETIC INTERFERENCE

Commenters expressed concerns with potential interference from EMF with electronics and equipment. Technologies identified included cellular phones, computers, wireless internet, television (including satellite and cable television) and AM/FM radio signals for water pumping stations. Others were concerned about interference impacting home businesses, and mitigation for such interference was recommended.

Commenters also expressed concern about the potential for the preferred alternative to interfere with AM radio and broadcast television communication sites in the project area. Commenters particularly requested additional mitigation measures for relocating any impacted broadcasting communication sites to a location that does not interfere with them. Others requested compensation to the landowner for impacts to land use or operation of pumping systems affected by EMF.

TRANSMISSION LINE DESIGN

Commenters identified a variety of transmission line EMF-related design issues. Commenters questioned the protectiveness of a 150-foot right-of-way design from the potential effects of EMF for a 500-kV transmission line, compared to a 300-foot easement for a 230-kV transmission line. In addition, some commenters identified studies and policies that include minimum safe distances for buildings relative to large transmission lines. Other commenters thought new regulations on EMF exposure are likely to be created in the near future and suggested that BPA begin siting transmission lines with this assumption.

Commenters stated preferences for placing the lines in unpopulated areas, as far away from existing homes as possible. Additionally, commenters living near existing transmission lines, particularly along the West Alternative and Segment 52, expressed concerns about increased EMF exposure from another line.

Commenters suggested that phasing of the power lines could help reduce EMF.

Commenters requested that BPA notify individual property owners of the EMF levels that will be emitted at various distances from the proposed lines and allow individual property owners the right to select the easement width they feel comfortable with until such radiation levels fall below the documented levels of associated health risk.

Also, commenters expressed concern about levels of EMF having a greater risk in Castle Rock because of tractors and vehicles operating around the lines, flowering and seeding trees and higher occurrences of foul weather. Commenters said the draft EIS fails to address public concerns about perceived health risks from EMF.

Commenters questioned the validity and quality of analysis of EMF impacts in the draft EIS including the following:

- BPA has not defined an impact level for effects of magnetic fields

- BPA has dismissed a statistical association between childhood leukemia and exposure to high voltage transmission line levels of EMF greater than 3-4 milligauss(mG)
- BPA has not adopted a risk avoidance policy similar to California of not locating new high voltage transmission lines along routes which will expose existing homes to magnetic fields greater than 3-4 mG
- There is only one page in the draft EIS on magnetic fields
- There are misleading examples to support BPA's position on EMF and contradictory studies in Appendix G

Commenters also said there was little analysis in the draft EIS on cumulative and long-term effects of EMF generated by high voltage transmission lines.

NOISE

Commenters expressed their concerns about increased noise levels from transmission lines, including potential effects on children, animals, livestock and wildlife. Specifically, comments addressed sounds from the lines, including "hissing," "humming," "buzzing," "crackling," and "snapping," especially during wet weather.

Commenters said the effects of corona on ambient noise levels from placing a new line in a rural area would significantly impact their quality of life compared to those living in urban and suburban areas. Commenters said siting the lines farther east would minimize noise impacts due to topography, and less populated areas.

Commenters specifically expressed concerns about noise and coronas affecting high performance horses, the safety of riders, the sensitivity and health of the horse, and the ability to continue using training facilities in the project area.

Cumulative impacts of noise also were a concern. Commenters living near existing transmission lines expressed concerns about heightened noise levels from increased line voltage. Commenters stated concerns about the cumulative impact of noise on their properties, especially from freeways or other transmission lines in the area, and the potential for noise levels to increase if trees buffering existing noise were removed from a transmission right-of-way.

Additionally, commenters were concerned about the potential for noise impacts from construction and monitoring activities, and asked what guidelines would be used to evaluate noise levels in the project area.

Commenters said the draft EIS does not adequately disclose impacts from coronas and noise to landowners impacted by the preferred alternative and new transmission line right-of-way.

Commenters questioned the quality of the data and criteria used in the draft EIS for noise in the areas directly impacted by the project, specifically using precipitation levels from Portland Airport, not local data relevant to Clark and Cowlitz counties.

HEALTH AND SAFETY

GENERAL HEALTH AND SAFETY COMMENTS

Commenters expressed their concerns about potential impacts to the health and safety of people, pets and livestock near transmission lines. Commenters were especially concerned about the risks to small children and schools located on or near the line. Commenters asked what the long-term impact on human health is for people living under or near a transmission line.

Commenters raised concerns about transmission lines near their homes contributing to more severe symptoms of existing medical conditions, including seizures, kidney transplants, low immune systems, asthma and stress. Commenters also outlined concerns from construction impacts of the transmission lines and access roads, specifically increased dust and allergens affecting health.

Commenters also expressed concerns about construction and operation of high voltage transmission lines impacting the health and safety of high performance dressage horses and creating unsafe conditions for handlers, riders and trainers at training facilities. Commenters said high performance horses have a heightened sensitivity and reaction to corona, noise, and nuisance shocks from transmission lines. Others described their experience of transmission lines causing illness, distress, ulcers, colic, malnutrition, weight loss, behavioral problems and disruption in breeding and training of horses. Commenters stated the draft EIS does not adequately disclose the health and safety impacts to high performance horses, particularly a riding academy on Segment F.

Commenters discussed their concerns about the preferred alternative transmission lines creating significant hazards to routine forestry aviation used for silviculture operations, general reconnaissance, fire patrol, fire fighting and review of storm and animal damage. Commenters said that even if lines are highly visible, the safety risk is unavoidable, and it may jeopardize the ability to practice silviculture methods in the project area.

Commenters asked BPA to abide by any landowner safety policies when accessing or working on landowner's properties.

Some commenters stated if the preferred alternative right-of-way and towers changed the landscape of their properties, there would be a heightened safety and property damage risk from storms and winds. Others stated that the draft EIS does not address the safety issues of fallen towers and lines from severe storms and changing weather patterns, potentially causing high damages and loss of life. Commenters felt this would be a moderate impact on human safety for all the populated routes, due to low probability.

TOXIC SUBSTANCES AND CONTAMINATED SITES

Commenters expressed concern about the potential of the preferred alternative to disturb known toxic sites, creating a health and safety risk from contamination of ground water, streams or waterways through the project area. Specifically, commenters mentioned potential health and safety implications of contamination to the Troutdale Aquifer.

Commenters requested further analysis of the short and long-term risks and impacts to streams, fish, and public health and safety through seismic activity and ground disturbance of toxic waste sites.

Commenters also requested further detail on the location of hazardous sites along each alternative and the assessed risks. Specifically, commenters said the draft EIS does not adequately identify all known toxic waste sites in the Chelatchie Creek area, and should conduct a thorough analysis using federal, state and local resources to obtain a complete list. Additionally, commenters asked why impacts were assessed as low for known hazardous sites on the Central Alternative if information has been archived and there has been no reliable review of records for the International Paper Company Mill and Chelatchie sites.

Commenters also stated there was a high risk of disturbing contaminants in the Chelatchie Creek area from seismic activity, and any towers constructed would risk disturbing these contaminated areas. Commenters requested Ground Penetrating Radar studies be conducted at the towers proposed on or near such toxic waste sites.

USE OF HERBICIDES

Commenters identified the locations of wells on or near their properties, and expressed concerns about the use of herbicides, chemicals and toxins that could contaminate watersheds, wells and water supplies in the project area. Commenters requested that BPA select a route with the least proximity to residents relying on well water. Some also were concerned that concentrations of toxins may increase over time in the soils and wood, affecting the food and animals that people consume and the ability to grow certified organic produce.

Commenters submitted videos on their concerns about herbicides threatening human health and the environment.

Commenters requested BPA use natural alternatives to spraying herbicides and chemicals near or on landowners' properties, particularly because of growing organic produce, raising livestock and reliance on well water.

FIRE

Commenters expressed their concerns about the risk of fire from the transmission line, particularly in rural and forested areas along the preferred alternative. Commenters said placing transmission lines in the rural forested areas of Yacolt, Amboy, Chelatchie Prairie, Green Mountain, Hockinson and Venersborg would be "irresponsible and detrimental to the safety of the citizens residing in these areas," affecting their homes, land and the environment by a potential fire. Commenters also stated that Southwest Washington was "overdue" for another significant fire, and placing the line on new right-of-way (as compared to existing right-of-way on the West Alternative) would be an act of negligence to the safety of these people.

Commenters said there was a greater chance of a forest fire to spread and damage the transmission lines and towers along the Central Alternative than any other alternative.

Commenters requested additional mitigation measures to prevent and mitigate the spread of fire, particularly on forested land, stating that BPA should work with landowners and develop a mutually agreeable fire prevention plan for construction, operation and maintenance of the line.

Commenters stated that BPA should accept liability for any fires started because of the transmission line coming into contact with a fuel source.

SOCIOECONOMICS

COST TO LANDOWNERS

Commenters identified a variety of concerns related to costs to landowners. Some said a transmission line sited on or near their property would lower their property values due to aesthetic, noise, environmental, and perceived health effects. Others sited potential increases in liability, vandalism, or theft due to increased access to property via roads and cleared rights-of-way.

Commenters said that the preferred alternative would lower property values, impacting personal and family financial status. Commenters said that their homes are their primary source of savings and that financial losses from lowered property values would have long-term consequences, including bankruptcy, going “upside down” on mortgages, and losses to retirement savings. Commenters said that retirees on fixed incomes have fewer means of making-up for financial losses.

Commenters said the draft EIS fails to sufficiently measure the indirect socioeconomic costs of building the project.

Also refer to the “Property Issues” section for further discussion on cost to landowners.

LOCAL, REGIONAL AND STATE ECONOMY

Commenters said the preferred alternative would inflict additional economic decline to already financially struggling communities by forcing raised taxes to compensate for lowered tax bases from devaluation of properties on and near the line.

Commenters felt that if the project is financed through the American Recovery and Reinvestment Act of 2009, then the project should not be placed where it may have negative economic effects.

Commenters said the draft EIS fails to acknowledge and determine accurate property devaluation, economic impact and sales depression in Clark and Cowlitz counties from the project. These commenters said Cowltiz County and rural Clark County have some of the lowest levels of income, employment and access to health care on the West Coast. Others said the census data used in the draft EIS to determine poverty in the project area is outdated and inaccurate.

Commenters said tourism from recreation along the Cowlitz River is important to the local economy of Castle Rock. Commenters also questioned the quality of analysis in the draft EIS on recreation, tourism and local economies, stating it fails to quantify the impacts and does not include an explanation of the

trade-offs involved with each alternative. Commenters requested further analysis and development of mitigation measures for economic impacts.

Commenters stated that significant impacts to Castle Rock, Camas and Washougal urban growth areas could be avoided if BPA sited the line farther north and east, away from populated areas.

Commenters stated that permanently removing any area from the commercial forest land base is a permanent annual loss to the local economy. Commenters questioned the quality of analysis in the draft EIS, saying it does not adequately assess the present and future net economic and social losses of each alternative. Commenters requested further analysis of impacts to the local economy caused by impacts to the timber industry including estimates of the following: the impact of these revenue changes to the employment and income of lumber mills and other timber end users and the impact of both the short-term timber harvest and the long-term land conversion on employment and income in the local timber industry (including logging companies and mills).

INCOME, BUSINESS OPERATIONS AND EMPLOYMENT

Commenters identified a variety of income, business operations and employment issues that would be impacted by the project. Commenters said if the project was sited on a portion of their property it would impact the use of their entire property, especially in cases where their land is used to generate income through farming, timber or other business activities including lodging, recreation and horse training.

Commenters said that siting the line through Castle Rock would stifle any future growth, affect tourism and displace residents and small, rural businesses, negatively impacting the local economy and livelihood of the community.

Commenters described the nature and history of their properties and business operations. Commenters discussed potential impacts to ecolodges in the project area, particularly aesthetic impacts of the transmission line affecting business, tourism and recreation.

Commenters said the location of the Central Alternative transmission lines on property used for high performance horse training would effectively place the business out of operation, primarily from construction and operation of the line. Commenters stated that the draft EIS fails to address or analyze this impact and the negative impacts to the local businesses and the local economy as a result. Additionally, commenters described their experience with the training facility and how they would be directly affected by the potential closure of the business.

Commenters identified private and public tree farm and forestry operations, and discussed the economic and environmental benefits the businesses provide to the local, regional and state economies. Commenters also identified timberland as a renewable resource that generates and provides cyclical and dependable income for landowners. Commenters said the project would permanently impact their private tree farming business, and requested compensation.

By moving the line further east, commenters said small private tree farmers and landowners would be less impacted. They noted large landowners can more easily absorb the loss of productive land.

Commenters requested further analysis and information in the final EIS on the following:

- Effects to the local economy caused by impacts to the timber industry, including short-term and long-term foregone revenue
- Harvest restrictions, including what the long-term economic impacts will be to forest landowners that will have to construct new timber haul roads, new landings and respecting guyline setbacks
- Socioeconomic impacts from reduced recreational use and potential decrease from reduced Discover Pass sales on WDNR managed land

Commenters also said the draft EIS should more clearly define the calculations for net present value of foregone timber, using quantitative measurement units in evaluating the alternatives.

Commenters stated that construction of the preferred alternative on sites with potential for wind or other renewable energy development could prevent them from generating revenue from these lands. Commenters requested an analysis of the impacts to wind power development that are reasonably likely to occur from locating the transmission line along segments O, P or 30, and how the loss of revenue would be mitigated.

TAXES

Commenters expressed concerns about the preferred alternative impacting tax revenues, payments and assessments, particularly in Clark and Cowlitz counties and other local governments. As for tax revenues, commenters noted that the project would reduce the amount of home construction and depress assessed property values, thereby reducing tax revenues available to the local government, schools, fire districts, libraries, infrastructure and other critical services. Commenters also said that landowners would see a permanent increase in property taxes, which could increase every year because of the project.

Commenters said that local governments in the project area are heavily dependent on property taxes and a reduction in city "tax base in a property tax-dependent community has a direct impact on general fund services such as police and fire."

Commenters questioned how BPA proposes to mitigate for any impacts to lost tax revenue for Cowlitz and Clark counties, and requested BPA mitigate for any lost value the project will cause to local governments and counties. Commenters suggested BPA consider leasing the land from the county and charging the same yearly rate as the land use tax would be.

Commenters identified a study evaluating potential indirect economic and tax impacts from the project's four action alternatives to all property owners in Clark and Cowlitz counties.

Commenters said the draft EIS only evaluates the lost revenues in perpetuity from agricultural and timber interests and state trust lands, ignoring losses from real estate development and the resulting property tax shifts burdening all taxpayers indefinitely.

Commenters requested that the final EIS document potential long-term and permanent financial impacts from decreases in property value along each alternative, including decreases in government revenue from a diminishing property tax base.

PUBLIC SERVICES AND INFRASTRUCTURE

Commenters stated that a new right-of-way through the community of Castle Rock would affect the density of public services, reduce available property tax revenues and impact the school population. Commenters also stated that the draft EIS does not adequately identify or mitigate for socioeconomic impacts, specifically potential losses to the Castle Rock School District of funds obtained through timber-harvest revenues on state trust lands.

Commenters stated that Chapter 11 in the draft EIS is inadequate, missing critical information and incomplete studies, which limited their ability to fully understand how the project will impact the community's quality of life and ability for local governments to provide critical services and infrastructure. Additionally, commenters said there is no comparison of alternative alignments and no consideration of the project's impact on the Camas and Washougal communities and public services.

HOUSING

Commenters identified land in the project area that is currently planned for residential development, which could be affected by the project. Commenters identified locations in the project area that are more or less desirable due to affordable acreage properties, viewsheds and topography.

Commenters questioned the siting of the Central Alternative, as it would impact land primed for residential development, particularly along Segment F in Castle Rock and Segment 52 in Washougal and Camas.

Commenters requested mitigation for the financial loss of approximately 70 residential lots from the water service area in Castle Rock.

Also refer to "Land Use and Ownership" section for more discussion on impacts to growth areas.

DEMOGRAPHICS

Commenters discussed the impacts on elderly and retired populations, specifically how many are on fixed incomes and have reduced ability to handle the financial burden of moving and "starting over."

Commenters stated that historically the placement of high voltage transmission lines influences zoning and human settlement patterns, particularly along the West Alternative where higher poverty levels are found in households on or adjacent to the line.

Commenters said that the draft EIS fails to capture the high levels of poverty in both Cowlitz and Clark counties, specifically the percentage of school children eligible for free or discounted lunches at Castle Rock and Vancouver school districts.

Commenters also said that the draft EIS fails to include any population forecasts for the areas affected by the four action alternatives.

SOCIAL ISSUES AND QUALITY OF LIFE

Commenters described the unique and advantageous qualities of their properties and discussed the impacts to their quality of life and quality of community from a transmission line on or near their property. Some of these qualities included a rural lifestyle, privacy, recreation, natural setting, relative seclusion with access to population centers and neighborhood cohesion.

Commenters said that a transmission line would disrupt their lifestyles, damage the aesthetics and character of their communities and land, and ruin the reasons they had chosen to live in particular areas, including both rural areas and neighborhoods.

Commenters said that a transmission line would devalue their property and community investments in schools, and decrease the livability of their neighborhoods.

Some commenters expressed preferences for siting the line on the West Alternative, as it would create less disruption than building a new right-of-way on rural land. Others said it is a matter of social justice for taking land from private, rural landowners when there is a “viable option” of using the West Alternative.

Commenters requested further analysis in the final EIS on socioeconomic impacts from construction of the line, particularly the use of the local workforce, required trades, hourly wages and number of workers needed to construct the proposed line.

ENVIRONMENTAL JUSTICE

Commenters said the draft EIS inadequately addresses environmental justice and the preferred alternative is in direct conflict with Environmental Justice principles, particularly economic impacts to residents, businesses, and schools in Camas, Washougal and Castle Rock areas. Commenters felt Camas and Washougal already bear the brunt of the region’s transmission corridor, and is therefore disproportionally impacted.

Commenters stated the West Alternative would adversely impact a disproportionate number of low-income households.

TRANSPORTATION

Commenters identified aviation facilities and current flight routes within the project area, including Kelso Airport and Sutton Field and questioned the potential inference with air traffic from the transmission line. Commenters asked and encouraged BPA to consult with the U.S. Forest Service about aviation activity around Sutton Field.

Commenters stated they had previously encountered damage to local and private roads from BPA contractors favoring use of private roads for accessing transmission lines on or near their properties. Commenters requested BPA to provide more specific analysis of impacts to the Clark County road system, particularly the safety and delay times for non-project traffic and the extent or frequency which businesses and residents will experience lane closures or detours.

Commenters also requested further evaluation of potential safety hazards to motorists and interference with future road expansion plans in the City of Camas.

CULTURAL AND HISTORIC RESOURCES

Commenters identified and generally favored avoiding areas with significant cultural or historic importance.

Commenters described potential scenic and aesthetic effects the preferred alternative may have on historic trails and recreational areas including Tum Tum Mountain, Silver Star Mountain, Mount St Helens, Lucia Falls/Moulton Falls Trail, Chelatchie Railroad, Tarbell Trail, Klickitat Trail, Hantwick Trail, Bell Mountain Trail and Lewis and Clark National Historic Trail.

Additionally, commenters identified specific resources within the project area including archaeological and burial sites, historic buildings, tribal cultural resources, “historic drives,” and areas or properties with community or family history.

Commenters raised concerns about the effect the preferred alternative would have on properties applying for historical status. Commenters also said impacts to local cultural and historic sites in Castle Rock should be identified as high in the draft EIS. In addition to information and mitigation measures included in the draft EIS on cultural and historic resources, commenters listed the following requests:

- BPA consult with tribal governments to determine impacts to cultural resources, from ground disturbance and road construction, and to identify necessary mitigation methods
- BPA assess the impacts to the Lewis and Clark National Historic Trail using the Forest Service and U.S. Bureau of Land Management visual resource methodologies
- Amend impact levels for National Register and Historic Places properties from moderate to high
- BPA conduct a cultural resource survey of the project area using a qualified archaeologist
- Notify landowners if an historic or burial site is discovered

NATURAL RESOURCES

Commenters provided general and specific information about potential impacts a new transmission line may have on natural resources and provided feedback on relevant sections of the draft EIS.

GEOLOGY AND SOILS

Commenters discussed the suitability of specific areas due to geologic and soil conditions. Commenters identified areas with steep topography along the Central Alternative, which may preclude siting a transmission line. Others identified river crossings, particularly the Cowlitz River, with fragile dredge spoils that could be unsafe for siting towers, and volcanic lahars that may be present.

Commenters identified areas along the preferred alternative that are classified as “unstable terrain” or “high erosion hazard areas.” These commenters favored siting the line along the West Alternative, as it would disturb the least amount of acres of soil with severe erosion potential.

Commenters discussed the potential for construction activities and vegetation removal to contribute to soil erosion and landslides, particularly in areas with steep grades.

Additionally, commenters noted the potential for seismic events to impact transmission infrastructure, specifically induced landslide risk and contamination from hazardous waste sites in the Chelatchie Creek area.

Commenters stated the project would be in conflict with future mining plans that are currently permitted in the project area.

Commenters noted the draft EIS does not outline a rapid response plan for cleanup after a landslide, for example, and requested a rapid response plan be included as a mitigation measure. Others requested BPA follow specific mitigation measures provided by a licensed geologist if a landslide occurred during or after construction of the project. Also, landowners requested BPA compensate landowners for loss or damage to property or infrastructure or personal injury from a landslide caused by the project.

Commenters were also concerned that the draft EIS does not address potential cumulative impacts of locating towers or roads on known landslide areas or close to existing gas pipelines, specifically the Williamas Natural Gas and BP Hazardous Liquid pipelines along Segment F.

Commenters requested BPA analyze the long-term impacts of removing forest vegetation from soils with severe erosion hazard and landslide susceptibility, particularly along the preferred alternative. Additionally, commenters requested BPA coordinate and consult with large landowners on the design and location of towers and site-specific slope stability mitigation measures.

Also, commenters recommended specific mitigation measures related to blasting techniques in sensitive and landslide-susceptible areas.

Also refer to the “Health and Safety” section for further discussion on toxic substances and contaminated sites.

WATER

SURFACE AND GROUND WATER RESOURCES

Commenters identified specific surface and groundwater resources on or near their properties including:

- Boody Creek, Boody Pond, Cedar Creek, Columbia River, Cowlitz River, East Fork Lewis River, Jones Creek, Kalama River, Lacamas Creek, Lacamas Lake, Lake Merwin, Little Washougal River watershed, Moulton Falls, North Fork Lewis River Toutle River, Pup Creek, Rock Creek, Salmon Creek, Thompson Creek, Troutdale Aquifer, Washougal River
- Segments F, 18, 28, L, P, V, 30, 35, 52

Commenters identified wells used for drinking water and agricultural uses on their properties where municipal water supplies are not available. Commenters were concerned about the preferred alternative impacting watershed resources and local drinking water sources. Additionally, commenters said that access roads could increase potential damage and security to watersheds through increased public access, illegal hunting and off-road vehicle use.

Commenters expressed concerns about potential drinking and ground water contamination from proposed transmission line construction, operation and maintenance. Specific concerns include contamination from polychlorinated biphenyl (PCBs), heavy metals, herbicides or other contaminants that may be used on-site. Additionally, commenters discussed the potential for the project to disturb known hazardous sites, causing contamination of soils and ground and surface water sources. Commenters also identified studies conducted in the Dole Valley area to determine water sources and track potential contamination.

Commenters discussed the potential for vegetation clearing to increase stormwater runoff and infiltration, altering surface and ground water flows and water quality. Commenters reminded BPA to undertake a detailed stormwater analysis and prevention plan for the preferred alternative corridor, and discuss how it will meet or exceed local and regional standards. Others requested that new access roads be constructed with adequate drainage to minimize sediment delivery and run off to nearby water resources.

Commenters discussed the potential for the preferred alternative to impact conservation, stabilization, recovery and protection efforts of particular water and riparian zones, including Boody Creek, Boody Pond and North Fork Lacamas Creek.

Commenters expressed concern that all action alternatives cross numerous rivers and streams throughout the project, particularly in the vicinity of Camas. Commenters felt many of these crossings are avoidable if BPA considers other practicable alternatives. Commenters questioned the impact level assigned to cumulative impacts on water quality, stating that the preferred alternative has the highest number of stream crossings and highest loss of forest habitat, which does not support a conclusion of “low impact.” Additionally, commenters questioned the description and impact analysis on water sources from forested and cleared areas.

Commenters said impacts to any stream crossings with mature shrubs or trees providing shade should be rated as high due to the removal of vegetation that may affect water quality and ecological function.

Commenters requested additional analysis and further information in the final EIS on the following:

- Impacts to State-owned Aquatic Land easements, leases or licenses
- Soil disturbance and water quality impacts for the West Alternative
- Impacts to water quality at the Cowlitz River crossing and Segment F
- Impacts to the Troutdale Sole-Source aquifer and potential for contamination
- Clearing or vegetation alteration methods, including equipment to be used
- Updated GIS data for hydrological layers
- Impacts to aquatic resources once tower locations are confirmed
- Impacts to watersheds, specifically in the Camas and Washougal areas

Commenters also requested further discussion of mitigation measures for the:

- Use of herbicides and prevention of contamination to water sources
- Impacts to watersheds and water sources from clearing
- Methods that will be used to minimize impacts to water quality and soil compaction
- Impact of additional public access to watershed resources.

RIPARIAN HABITAT

Commenters said that riparian and aquatic habitat and species would be potentially impacted by a transmission line, and identified riparian zones in the project area.

Commenters expressed concerns about project impacts on surface water quality and riparian habitat, specifically, the potential for increased erosion and sedimentation from construction activities that could carry into streams, as well as stormwater runoff from cleared rights-of-way causing bank stabilization issues. Also discussed was the effect of tree removal on stream temperature.

Commenters said the preferred alternative would cause the clearing of native vegetation and logging of mature trees in a known riparian and wetland management zone which would be in direct conflict with the Washington State Forest Practices Act and the Forest Practices Act Conservation Plan. Commenters suggested additional mitigation measures to manage riparian areas impacted by the preferred alternative and requested BPA to avoid clearing in riparian management zone areas as much as possible.

Commenters listed data in the draft EIS that they felt supported selection of the West Alternative over the Central Alternative, specifically the amount of riparian vegetation that would be cleared at forested crossings of fish bearing streams.

Commenters said the draft EIS fails to adequately address impacts to shoreline areas, particularly those governed by Washington under the Shoreline Master Act. Commenters requested further analysis of these impacts in final EIS, and discussion of mitigation measures to compensate for effects of reduction in riparian vegetation along shorelines.

FLOODPLAINS

Commenters questioned the desirability of locating a project within a floodplain, as well as the potential for adverse effects to floodplains.

Commenters identified specific floodplains within the project area, specifically the Cowlitz River.

WETLANDS

Commenters discussed wetland areas used by wildlife for habitat and the role that wetlands play in a functioning ecosystem. Commenters identified specific, existing or potential wetland areas owned by homeowner associations, on or adjacent to their properties, along or within specific route segments, specific basins or other natural drainages and in other general areas:

- Boody Creek, Cowlitz River, Lacamas Creek, Lacamas North Shore, Rock Creek, Wet Prairie wetland area,
- Segments F, P, 18, 26, 28, 50

Commenters expressed their concerns for the protection of wetlands that could be affected by the preferred alternative. Commenters questioned whether towers could be located in wetland areas. Some commenters questioned whether BPA would build in wetlands and has authority to impact wetlands.

Commenters were confused about why the Central Alternative was selected as the preferred alternative, when it appears to clear the most amount of forested wetlands and have greater impacts overall. Others said that wetland impacts would be greater along the West Alternative.

Commenters identified studies discussing the project's potential for impacting wetlands, particularly focusing on why the West Alternative would be the most beneficial route. Commenters questioned the validity and reliability of data used in the draft EIS for wetlands and streams impacted by the project. Commenters said the wetland rating scores are invalid because they are not based on wetland delineations required by the wetland rating manual, which in turn "obscure the truth and create a false basis for environmental decision making."

Additionally, commenters said that the draft EIS does not adequately consider or clarify existing impacts along the West Alternative right-of-way, specifically the extent that wetlands have already been disturbed through vegetation clearing, soil disturbance and stream crossings, whereas the environment along the Central Alternative is seen as undisturbed and in "pristine condition."

Commenters questioned why BPA had not completed more "on-the-ground" fieldwork studies of wetlands and other resources before releasing the draft EIS. Commenters said this inhibits the ability to effectively evaluate the four action alternatives.

Commenters also said the draft EIS should have studied the option of using double-circuit towers on the West Alternative because this option would have fewer negative effects to wetlands.

Commenters stated that the draft EIS fails to identify a high quality wetland on the Cowlitz River and also fails to analyze the impacts of clearing vegetation and removing trees in this area.

Commenters requested further analysis, information or provided suggestions about wetland impacts including the following:

- Review and use updated data in the final EIS
- Conduct a finer scale assessment and on-the-ground site specific wetland delineations and identification of priority wetland habitats, types, locations, functions and potential impacts, to compare each alternative, including a supplemental draft EIS disclosing this information
- Propose mitigation measures for wetland delineations
- Describe how BPA will meet local standards and apply for permits from local counties for impacted wetlands
- Describe how construction at the Baxter Road substation would directly or indirectly impact adjacent forested wetlands
- Identify all activities anticipated to occur within or adjacent to wetlands and proposed mitigation measures
- Correct information in the final EIS for the identification of "Camas prairie wetland areas" as "wet prairie wetland areas"
- Undertake a more detailed ecological analysis of alternative routes to avoid wetlands, including siting the transmission line in Oregon and double-circuiting on the West Alternative

For further discussion on wetland impacts, refer to "Project Process," "Project Design" and "Action Alternatives and Segments."

SECTION 404 PERMIT PROCESS

Commenters provided the following feedback on the permitting process for Section 404 of the Clean Water Act administered by the Corps:

- Commenters asked that the final EIS discuss the permitting requirements and guidelines for Section 404 of the Clean Water Act in greater detail.
- Commenters felt that by submitting an application for a Section 404 permit for the preferred alternative, BPA is not truly considering the No Action Alternative or other action alternatives.
- Commenters requested that BPA apply for a Section 404 permit for the West Alternative in addition to its current application to permit Central Alternative using Central Option 1, its preferred alternative.
- Commenters asked BPA to apply for a Section 404 permit for the West Alternative using double- or triple-circuit towers to minimize negative effects to wetlands if the West Alternative is not able to be permitted as currently proposed.
- Commenters asked the Corps to only permit the West Alternative because they believed it is the alternative with the least negative effects to the natural environment.

- Commenters believed that BPA should apply for a Section 404 permit for the West Alternative because of the existence of BPA's right-of-way along the West Alternative.
- Commenters requested evidence that the Corps would not be able to issue a Section 404 permit for the West Alternative.
- Commenters questioned how the Corps could issue a permit for the Central Alternative when other alternatives appear to have fewer impacts on the aquatic ecosystem, wetlands and riparian buffers.
- Commenters asked BPA to remove from consideration any alternatives that the Corps is not able to permit.
- Commenters requested the Corps to send notifications about the Section 404 permitting process to all landowners on BPA's project mailing list, not just landowners within 300 feet of project components on BPA's preferred alternative.
- Commenters said they had not received the Corps' notification about the Section 404 permitting process and thought they should have received it.

Commenters asked that BPA provide analysis and evaluation on whether the project will affect the status of state and federal permits held by landowners or require new permits be obtained by the landowner because of the project.

VEGETATION

Commenters discussed the benefits of native vegetation for habitat, controlling erosion and cooling streams, as well as acting as noise, visual and privacy buffers in developed areas. Commenters said the removal of native vegetation would create impacts on watershed and stream health, increase flooding and landslides, and remove existing property buffers on developed properties. Additionally, commenters stated that removing large numbers of trees could leave the remaining stands more susceptible to tree fall during windstorms and desiccation from increased light.

Commenters identified stands of old growth and older trees, valley fringe forests, and the presence of snags used as wildlife habitat within the project area and preferred alternative. Specific species and habitats of concern included the following:

- Variety of fir species, cedar, conifer, cottonwoods, big-leaf maples, Oregon white oak woodlands, wildflowers including: trillium, dense sedge, and Nuttall's quillwort; corydalis aquae-gelidae
- Segments 28, V, P, L
- Boody Creek, East Fork Lewis River, Lacamas Prairie Natural Area, Merwin Dam, North Fork Lacamas Creek, Rock Creek

Commenters suggested BPA develop a plan to seed and plant low growing shrubs and native vegetation along impacted streams and cleared land to maintain water temperatures, mitigate the spread of noxious weeds, and avoid or minimize the use of herbicides. Others said using a mix of suitable vegetation would also promote wildlife habitat and reduce soil erosion.

Some native species suggested included Black raspberry, Fireweed Epilobium, Hazelnut, Native evergreen forbs, Native grasses, Native rose, Red elderberry, Salmonberry, Snowberry, Thimbleberry, Trailing blackberry, Vine maple Osoberry, Willow Salix. Commenters questioned the analysis of vegetation impacts on the Central Alternative as "low" in the draft EIS, stating that the report failed to analyze the impacts of permanently removing forested vegetation for 1,200 acres, making the land more susceptible to noxious weeds, erosion and decreased habitat for wildlife.

Commenters asked how the project will affect landowners who are subject to the Forest Practices Act.

Commenters requested more analysis on the impacts to aquatic freshwater vegetation, ensuring the WDNR list of protected vegetation is used during surveys of aquatic plant species.

Commenters asked for further clarity on the impact level and analysis for special status plant species and discussion of mitigation measures for the impacts. Also, commenters requested pre-construction surveys on the impacts to special status plant species.

Commenters suggested BPA replant or repair native species that are impacted by the construction of the preferred alternative.

Additionally, commenters requested further discussion in the final EIS regarding the mitigation of impacts from removal of legacy trees and retention clumps, particularly their potential to affect species and habitats that conservation strategies are trying to protect.

Commenters expressed concerns about the proliferation of non-native or invasive species, particularly in cleared rights-of-way, their impacts to native plant and wildlife species, as well as their nuisance to adjacent landowners. Commenters identified existing cleared transmission line rights-of-way where non-native vegetation and noxious weeds are prolific. Species identified included: Canary Reed Grass, Himilayan Blackberry, Kudzu and Scotch Broom.

Commenters expressed concern that BPA may use powerful herbicides to control non-native species and the potential effects of these chemicals on human and animal health, the water supply, and their persistence in the environment. Commenters also requested BPA consider using natural alternatives to herbicides to control vegetation.

Commenters reminded BPA to comply with county, state and federal rules and restrictions on preventing and controlling the spread of noxious weeds, including Clark County's Shoreline Master Program for vegetation conservation, WDNR's Habitat Conservation Plan and the Terrestrial Coordination Committee's Wildlife Habitat Management Plan. Commenters said if invasive and noxious species spread onto adjacent private lands of the right-of-way, BPA should be responsible for the cost of controlling the spread on those lands. Additionally, commenters suggested BPA invest more money to control invasive species and restore native vegetation and habitat impacted by the preferred alternative.

Commenters requested further discussion in the final EIS on long-term mitigation, particularly how BPA will maintain and prevent the spread of invasive and noxious weeds for the life of the project.

Also refer to the "Health and Safety" section for further discussion on herbicide use.

WILDLIFE

Commenters discussed impacts to wildlife and habitat, including upland habitats such as forests, meadows and prairies; riparian habitats; and aquatic, in-stream habitat and species.

Commenters identified multiple unique species and their habitats on or adjacent to their properties that could be impacted by a transmission line, including large and small mammals, a variety of birds, reptiles, amphibians and insects. Particular native species and habitats mentioned include:

- Species:
  - Aquatic: (also refer to "Fish"), Western Pearlshell mussels
  - Amphibians and Reptiles: frogs, including the Coastal Tailed Frog and Northern Red-Legged frog; salamanders, including the Cascade Torrent Salamander, Giant Pacific Salamander and Larch Mountain Salamander; and toads, including the western toad; turtles, including the Western Pond Turtle
  - Insects: dragonflies and butterflies
  - Birds: Waterfowl including geese, Bufflehead Duck, Harlequin Duck, Ocean Duck, Wood Duck, Hooded Merganser. Birds of prey including Bald Eagle, Golden Eagle, Owls, Northern Spotted Owl, Osprey, Merlin Falcon, Peregrine Falcon, Cooper's Hawk, Harrier Hawk, Red-Tailed Hawk. Other birds including Band-tailed Pigeon, Blue Heron, Green-backed Heron, Northern Flicker, grouse, Slender-billed White Breasted Nuthatch, Pileated Woodpecker, Downy Woodpecker, Hairy Woodpecker, Winter Wren, Violet-green Swallow, songbirds, raptors, kingfishers, Greater Yellowleg, Wild Turkey, cranes, bats, Olive-sided Flycatcher, Vaux's Swift, Spotted Sandpiper, Killdeer, warblers
  - Mammals: Bears, beavers, bobcats, deer (Columbian black-tailed), cougars, coyotes, Roosevelt Elk, muskrats, otters, minks, Marbeled Murrelet, lynx
- Segments: F, 11, 18, 28, V, L, P, 52
- Areas: Boody Creek, East Fork Lewis River, Cowltiz River, Kalama River, Lacamas Creek, Lacamas Praire Natural Area, Lake Merwin, Merwin Dam, North Fork Lacamas Creek, North Fork Lewis River, Washougal River

Commenters identified wildlife and riparian buffers that the project would be in conflict with, particularly on Segment P, and requested further wildlife inventory and analysis of potential danger to raptors and bats.

Commenters expressed concern for the project to compromise habitat for elk and deer by eliminating habitat through road construction. Noxious weeds, non-native vegetation, unauthorized access and poaching were specifically noted. Commenters also stated that removal of snags by the preferred alternative would permanently remove critical habitat for cavity nesters and be non-compliant with Wildlife Habitat Management Plan objectives.

Commenters expressed concerns that the Sundial substation would affect wild populations of rare species of Western pond turtles, which are not found in Washington.

Commenters said the Central Alternative would be in conflict with a national bill and recovery plan to protect the habitat of threatened and endangered species, including the Northern Spotted Owl, by potentially introducing barred owls to spotted owl territory. Others were also concerned about the potential for the project to indirectly affect other threatened and endangered species further downstream if water quality is affected in creeks, rivers and streams, specifically Lacamas Creek and Camp Bonneville.

Some commenters said that wildlife would not be deterred from a cleared corridor provided by the right-of-way. They felt constructing a more expensive line in an uninhabited area would be worth the cost in comparison to impacting the lives of people. Others said that while wildlife preferring open shrubland may become more abundant, there would still be a loss of existing habitat and animal species.

Commenters said that BPA would be intentionally disregarding native wildlife habitat and known breeding and roosting locations by constructing the Central Alternative in its current location, particularly bald eagle sites and high quality wildlife areas on the Cowlitz River, Merwin Dam and East Fork Lewis River. Additionally, commenters requested BPA to conduct monitoring activities in areas of known bald eagle roosting sites during construction of the project.

Commenters were concerned with the potential for the project to disrupt bird and wildlife migration patterns, isolate species and cause collision risk. Commenters asked BPA to assess the collision risk transmission line infrastructure poses to birds and bats through field surveys and to modify problem structures. As a safeguard, commenters recommended BPA place aerial marker devices on any transmission lines crossing the North Fork Lewis, East Fork, Kalama and Washougal Rivers to reduce the likelihood of injuries to bald or golden eagles from strikes in their flight corridors. Other commenters stated that mitigation measures would not work, and the only method of reducing the impact on birds would be siting the line elsewhere.

Commenters stated that the information used in Chapter 18 of the draft EIS appears to be unreliable and outdated, and that more current and accurate data should be used to determine impacts to species from the project. Additionally, commenters stated that the draft EIS understates the impacts the preferred alternative would have on species as it fails to list known and documented threatened and endangered and priority habitat species occurring in the project area. Commenters also reminded BPA of its obligation to identify the presence of any threatened and endangered species or species of special concern, and assess their impacts.

Commenters asked that BPA provide detailed analysis of the Endangered Species Act as it relates to the project's effect on incidental take permits issued to landowners and the project's likelihood to increase incidental taking of federally and state listed endangered species.

Commenters identified errors and inconsistencies in the draft EIS, specifically referencing a special status species list in Appendix N, which includes NEPA disclosure forms.

Commenters stated that the draft EIS fails to adequately identify and study alternative alignments in the vicinity of Camas that would have less impact on threatened and endangered species and their habitat.

Commenters requested further analysis or information in the final EIS on the following:

- All anticipated effects, not just adverse impacts to elk and deer, slender-billed white breasted nuthatch and wild turkey
- Expected effects of a new transmission line through bald eagle habitat, particularly Segment F on the Cowlitz River, Segment L downstream of Lake Merwin and Segment V on East Fork Lewis River
- Discussion on the amount and types of native habitats and animal species that will be replaced by new habitats along the cleared right-of-way
- Additional appendix on special status species and known species occurring in the project area
- Opportunities to improve wildlife habitat should be identified and funded
- Results of habitat assessments and surveys of northern spotted owl and marbled murelet conducted for the project
- The effect the clearing of bank vegetation may have on sensitive populations, specifically the impact the preferred alternative would have on a beaver pond and the habitat it creates in the Cowlitz River on Segment F
- More clarity on whether BPA will seek a habitat permit from Clark County and how it will meet or exceed local wildlife requirements
- All environmental effects to state and federally listed sensitive, threatened and endangered species
- Impacts to National Audubon Society designated bird areas, migratory birds and bald and golden eagles

FISH

Commenters expressed concern for the project to negatively impact fish species and riparian habitat, particularly along the preferred alternative. Commenters identified species and their habitats on or adjacent to their properties including:

- Species: Salmon and salmonids (including Lower Columbia Coho and Chinook), chum, steelhead, trout (including Cutthroat) and lamprey
- Segments: F, 18, 28, 30, V, P
- Locations: Cedar Creek, Chelatchie Creek, Coweeman River, Cowlitz River, Dole Valley, East Fork Lewis River, Little Washougal River, North Fork Lacamas Creek, North Fork Lewis River

Commenters expressed concerns about project impacts on surface water quality, specifically, the potential for increased erosion from construction activities that could carry into fish bearing streams, as well as stormwater runoff from cleared rights-of-way and herbicide use. Also discussed was the effect of removal of trees and vegetation on stream temperature. Commenters said areas along the preferred alternative where there would be permanent changes to riparian habitat, impairment to hydrology and removal of stabilizing vegetation should be assessed as high, as this will have a significant impact on local fish and amphibians.

Commenters questioned BPA's selection of the Central Alternative as the preferred alternative, as it crosses the greatest number of fish bearing streams requiring clearing of forested vegetation, particularly where existing vegetation provides high shade function. Additionally, commenters stated preferences for selecting the West Alternative, as impacts to floodplains and fish bearing streams would be lower, due to existing disturbed areas on the current right-of-way.

Commenters reminded BPA to work within Washington Department of Fish and Wildlife established work windows for constructing all water crossings, to protect listed and sensitive fish species.

Commenters expressed concerns over the impacts that the preferred alternative may have on historically diminished steelhead populations in the East Fork of the Lewis River. Commenters also questioned placing the line in areas where federal money has already been spent on fish habitat restoration projects, most notably the Chelatchie Creek and Cedar Creek tributaries, and East Fork Lewis River. Commenters questioned the findings in the draft EIS, stating conclusions about impacts to Endangered Species Act listed species are contradictory in chapters 19 and 27. Additionally, commenters said that the text in the draft EIS has little relevance or connection with maps in the draft EIS. Commenters also questioned why no fish surveys were undertaken to analyze potential effects on listed species' critical habitat. Commenters requested BPA prepare a Biological Assessment and consult with the U.S. Department of Fish and Wildlife Service and National Oceanic and Atmospheric Administration on mitigation measures for the final EIS, and identify any listed species covered under the WDNR's Forest Practices Habitat Conservation Plan.

Commenters stated that the draft EIS fails to adequately consider existing clearing along the West Alternative right-of-way and assess the potential for soil disturbance and the impact on fish and water quality that would be caused by construction of the West Alternative.

Commenters said the draft EIS is inconsistent in its analysis of impacts of the preferred alternative on fish bearing streams and stream crossings in riparian areas, stating it would be high, but suggests long-term changes or impacts on the watershed or water quality would be low. Additionally, these commenters requested BPA address this recurring inconsistency in the draft EIS, specifically that BPA acknowledges impacts will be high, but states that overall, change or effect on the resource will be low.

Also refer to "Wetlands," "Water," and "Wildlife," for further discussion on fish and fish habitat.

AIR QUALITY AND CLIMATE

Commenters discussed air quality levels in the project area, stating that Washington has double the CO_2 emissions compared to Oregon, and three times that of Montana.

Commenters identified areas of high winds, storms and heavy precipitation which could impact transmission lines or towers. Commenters also questioned the use and accuracy of rainfall and precipitation data used in the draft EIS.

Also refer to "Project Purpose and Need," "Health and Safety" and "Action Alternatives and Segments" for further discussion on climate and air quality.

GREENHOUSE GASES

Commenters stated that the draft EIS mentions US Environmental Protection Agency greenhouse gas reporting requirements, but fails to mention Washington state greenhouse gas reporting requirements.

INTENTIONAL DESTRUCTIVE ACTS

Commenters encouraged BPA to consider and evaluate the vulnerability of the transmission lines and towers to acts of terrorism due to their proximity to major highways and roadways.

Other commenters described their experience with sabotage and theft of timber on forested lands from people stealing timber and danger trees along transmission line rights-of-way, with impacted landowners having no recovery of the loss.

SHORT-TERM USES VERSUS LONG-TERM PRODUCTIVITY

Commenters said the ecological impacts from the construction and operation of the project would be multi-leveled, with both local and regional impacts potentially affecting the productivity of the environment and ecological diversity.

IRREVERSIBLE OR IRRETRIEVABLE COMMITMENT OF RESOURCES

Commenters said that landowners would experience permanent loss of productive use or value of renewable timber land.

Commenters referenced instances in the draft EIS which appear contradictory, specifically statements about the project permanently impacting wildlife in Chapter 25, but noting overall impacts on watersheds and wildlife are identified as low in Chapter 4.

Also refer to “Land Use and Ownership,” “Socioeconomics” and “Property Issues” for further discussion on loss of productive land.

CUMULATIVE IMPACTS

Commenters stated they were concerned with the impact of additional transmission lines and access roads, particularly where transmission lines and easements already exist on or adjacent to their properties. Commenters felt they were already heavily burdened with impacts from managing these easements including increased costs, land-use restrictions, loss of revenue, time property damage, and monitoring of unauthorized access. Commenters said it was “unfair” to place additional burden on small landowners, as they had already “given enough” of their land to other agencies through dredging projects and other energy infrastructure.

Commenters expressed concerns with the cumulative impacts to scenic resources, particularly in Camas, Washougal and the Columbia River Gorge. Others were concerned about the preferred alternative impacting water quality and cleanup efforts at Camp Bonneville.

Commenters questioned why the Central Alternative was selected as the preferred alternative when it has higher cumulative impacts than other alternatives. Commenters felt the draft EIS does not adequately assess or present a detailed quantitative assessment of cumulative impacts, as required by NEPA. Commenters said that statements in the draft EIS are misleading about the assessed permanent impact of a new right-of-way on land-use in the project area. Additionally, commenters requested that a supplemental draft EIS be prepared to provide a qualitative and quantitative analysis of impacts from all project alternatives.

Commenters said the draft EIS fails to assess the cumulative impact on wetlands in the project area.

Commenters were also concerned that the draft EIS does not address potential cumulative impacts of locating transmission towers and roads on known landslide areas in proximity to existing gas pipelines, particularly the Williams Natural Gas and BP Hazardous Liquid pipelines along Segment F.

Commenters said the impact analysis fails to consider the rate of development of industrial wind energy facilities and natural gas facilities in the region, and the associated impacts to the BPA transmission system. Commenters requested that the cumulative impact analysis in the final EIS include all existing, proposed and foreseeable projects and actions in the region, along with a programmatic review of energy development within the region and impacts to scenic resources and wildlife.

OTHER

Commenters supplied background or introductory information and historical context for their comments as well as their properties or other locations. They shared the goals of their affiliated organizations and their reasons for providing comments. Commenters provided their level of expertise on particular subjects and their capacity to provide informed comments on the draft EIS.

Some commenters stated strong opinions about aspects of the project or BPA as an organization.

Commenters provided instructions for how they would like their comments handled. They also indicated instances when they agreed or disagreed with comments submitted by other individuals or organizations.

Some commenters explained where the sources of their information came from.

Commenters provided information that is not directly related to the project but thought project staff should be aware of it.

NEXT STEPS

BPA released the draft EIS on November 13, 2012, for public review and comment through March 25, 2013. BPA will now begin preparing a final EIS, including any necessary changes to the EIS as well as responses to all comments received during the draft EIS comment period. BPA continues to work with cooperating agencies and landowners on refining the project location and design, and will conduct engineering and environmental surveys to provide additional information for potential adjustments and inclusion in the final EIS.

BPA expects to complete the final EIS in 2014. A record of decision also is expected in 2014 that will identify the agency's decision on whether to build the project. At that time, if the decision is to build, a final route would be identified. Construction could then begin in 2015 and would last about three years.

APPENDIX A – COMMUNICATIONS RECEIVED

Appendix A includes all communications received during the draft EIS period, and is available on the project website at: www.bpa.gov/Projects/Projects/I-5/2013Documents/2013_0619_BPAI5_D_CommentSummary_AppendixA.pdf

If you do not have access to the Internet and would like to receive a CD or hard copy of this appendix (863 pages), please call our toll free document request line at 800-622-4520 and leave a message with your name and mailing address, and ask for "I-5 Project Draft EIS Comment Summary, June 2013, Appendix A." Please specify CD or hard copy.

APPENDIX B – CODING CATEGORIES

The following comment categories were used to code individual comments contained within each communication included in the draft EIS comment summary. Each communication was given a unique number, and each comment within the communication was categorized by subject. All categories used to assign to draft EIS comments included the following:

Air Quality
Alternatives considered but eliminated
Baxter Road Substation
Camas-Washougal area
Casey Road Substation
Castle Rock area
Central Alternative
Communication systems
Conductors
Construction or construction process
Crossover Alternative
Cultural resources
Cumulative impacts
Danger trees and removal
East Alternative
Electromagnetic fields
Eminent domain
Environmental justice
Existing realty related issues
Fish
Geology/soils
Greenhouse gases/climate
Identifying the preferred alternative
Intentional destructive acts
Irreversible or irretrievable commitment of resources
Land use and ownership
Lexington Substation
Maintenance: transmission line/access roads
Maintenance: vegetation clearing
Mitigation/monitoring after construction
Mitigation/monitoring general
Monahan Creek Substation
NEPA process
Network open season
New alternative suggestions
Noise
Obstruction lighting and marking
Other (miscellaneous)
Overhead groundwire and counterpoise
Permission to enter property
Permits
Project cost
Project need
Property and easement negotiation
Property values
Public health and safety
Public involvement process
Recreation
Regional energy generation/transmission development
Ross Substation
Segments 1 - 52
Segments A - W
Short-term uses vs. long-term productivity
Sifton Substation
Siting and segment development
Socioeconomics
Substations
Sundial Substation
Survey
Transmission towers design and construction
Transportation
Troutdale Substation
Unauthorized access
Vegetation/weeds
Visuals
Water
West Alternative
Wetlands
Wildlife