Chapter 14
Agricultural Resources

14.3 Environmental Consequences

14.3.3 Effects and Mitigation Approaches

14.3.3.2 Alternative 1A—Dual Conveyance with Pipeline/Tunnel and Intakes 1–5 (15,000 cfs; Operational Scenario A)

Table 14-8. Estimated Conversion of Important Farmland as a Result of Construction of Water Conveyance Facilities, by Alternative (Acres)
~~**Alternative(s)**~~

	Permanent Surface Impacts					Temporary and Short-term Surface Impacts						
	Farmland of Local Importance	Farmland of Statewide Importance	Prime Farmland	Unique Farmland	Subtotal	Farmland of Local Importance	Farmland of Statewide Importance	Prime Farmland	Unique Farmland	Subtotal	Grand Total	Percent of Total in Study Area
Alternatives 1A and 6A	173	330	3,427	1,054	4,984	143	13	1,126	48	1,329	6,313	1.23%
Alternatives 1B and 6B	513	530	15,800	2,031	18,875	99	61	1,769	214	2,144	21,019	4.10%
Alternatives 1C and 6C	690	291	11,124	909	13,014	466	165	2,380	160	3,170	16,184	3.16%
Alternative 2A[a]	133	330	3,473	1,056	4,992	131	13	1,634	48	1,826	6,818	1.33%
Alternative 2B[a]	473	530	15,833	2,032	18,868	89	61	2,282	236	2,669	21,537	4.20%
Alternative 2C	690	291	11,127	912	13,019	466	165	2,380	160	3,170	16,189	3.16%
Alternative 3	124	330	3,331	1,053	4,838	59	11	863	20	953	5,791	1.13%
Alternative 4	~~197~~209	~~158~~123	~~4,281~~3,283	~~339~~294	~~4,975~~3,909	~~237~~132	~~70~~123	~~955~~1,074	~~53~~166	~~1,315~~1,495	~~6,290~~5,404	~~1.23~~1.06%
Alternative 5	124	330	3,267	1,049	4,770	59	11	747	17	833	5,603	1.09%
Alternatives 7 and 8	111	330	3,388	1,054	4,883	64	13	979	48	1,105	5,987	1.17%
Alternative 9	41	307	2,104	7	2,459	97	71	388	3	559	3,018	0.59%

[a] Assumes Intakes 1–3, 6, and 7; otherwise, effects would be the same as Alternatives 1A and 1B, respectively.

Table 14-9. Estimated Conversion of Williamson Act and Farmland Security Zone Farmland as a Result of Construction of Water Conveyance Facilities (acres)

	Permanent Surface Impacts			Temporary and Short-term Surface Impacts				
Alternative(s)	Farmland Security Zone	Other Williamson Act	Subtotal	Farmland Security Zone	Other Williamson Act	Subtotal	Grand Total	Percent of Total in Study Area
Alternatives 1A and 6A	643	2,215	2,857	77	710	787	3,645	0.84%
Alternatives 1B and 6B	3,788	10,292	14,080	233	1,093	1,326	15,406	3.57%
Alternatives 1C and 6C		7,647	7,647		1,243	1,243	8,890	2.06%
Alternative 2A[a]	643	2,267	2,910	77	1,195	1,272	4,182	0.97%
Alternative 2B[a]	3,788	10,337	14,125	233	1,644	1,877	16,003	3.71%
Alternative 2C		7,646	7,646		1,243	1,243	8,890	2.06%
Alternative 3	643	2,170	2,813	77	645	722	3,536	0.82%
Alternative 4	~~19~~ 43	~~3,061~~1,992	~~3,080~~2,035	~~115~~ 120	~~722~~ 1,012	~~837~~ 1,132	~~3,917~~3,167	0.~~91~~73 %
Alternative 5	643	2,110	2,753	77	554	632	3,385	0.78%
Alternatives 7 and 8	643	2,204	2,847	77	667	744	3,592	0.83%
Alternative 9	919	1,428	2,347	132	659	790	3,137	0.73%

[a] Assumes Intakes 1–3, 6, and 7; otherwise, effects would be similar to 1A and 1B, respectively.

14.3.3.9 Alternative 4—Dual Conveyance with Modified Pipeline/Tunnel and Intakes 2, 3, and 5 (9,000 cfs; Operational Scenario H)

Alternative 4 would result in temporary effects on agricultural land in the study area associated with construction of three intakes and ~~intake pumping plants, and other~~ associated facilities; two forebays; conveyance pipelines; and tunnels. Nearby areas would be altered as work or staging areas, geotechnical investigation sites, concrete batch plants, fuel stations, or be used for spoils storage areas. Transmission lines, access roads, and other incidental facilities would also be needed for operation of the project and construction of these structures would have temporary or short-term effects on agricultural lands.

Implementation of Alternative 4 would also result in permanent conversion of agricultural lands to nonagricultural uses associated with the three intakes and ~~intake pumping plants and other~~ associated facilities; two forebays; and tunnel shafts. Other project features that would result in conversion of agricultural lands include soil borrow, spoil, dredged material, and RTM storage areas; new or relocated power transmission structures; and ~~access~~ new, rerouted, or improved roadways for public access or for access to project facilities.~~Temporary and permanent features associated~~

Impact AG-1: Temporary Conversion, Short-Term Conversion, and Permanent Conversion of Important Farmland or of Land Subject to Williamson Act Contracts or in Farmland Security Zones as a Result of Constructing the Proposed Water Conveyance Facility

Temporary and short-term conversion of Important Farmland as a result of constructing the proposed water conveyance facility

Temporary and short-term construction of water conveyance facilities associated with Alternative 4 would convert existing agricultural land to construction-related uses, directly precluding agricultural use for the duration of construction. This alternative would result in the temporary or short-term conversion of approximately ~~1,315~~ 1,495 acres of Important Farmland to other uses, including ~~955~~ 1,074 acres of Prime Farmland, ~~70~~ 123 acres of Farmland of Statewide Importance, ~~53~~ 166 acres of Unique Farmland, and ~~237~~ 132 acres of Farmland of Local Importance.

Of these acres of Important Farmland, intake work areas, adjacent to the proposed intakes ~~and pumping plants~~, would require the short-term conversion of approximately ~~410~~ 150 acres near the east bank of the Sacramento River between Freeport and Courtland. Other temporary work areas, including those necessary for geotechnical investigations and for the construction of tunnels and transmission lines, would be located throughout the conveyance alignment. Mapbook Figure M14-7 shows all of the construction features (including temporary work areas) associated with this proposed water conveyance facility alignment along with Important Farmland. Table 14-8 displays a summary of temporary and short-term acreage and permanent acreage of Important Farmland that could be converted to non-agricultural uses under implementation of each alternative.

Permanent conversion of Important Farmland as a result of constructing the proposed water conveyance facility

Physical structures associated with construction of water conveyance facilities and borrow, spoils, and RTM areas would occupy agricultural lands designated as Important Farmland, directly precluding future agricultural use. The facilities associated with this alternative could convert approximately ~~4,975~~3,909 acres of Important Farmland to project uses, including ~~4,281~~3,283 acres of Prime Farmland, ~~158~~ 123 acres of Farmland of Statewide Importance, ~~339~~ 294 acres of Unique Farmland, and ~~197~~ 209 acres of Farmland of Local Importance.

Of these acres of Important Farmland, the forebays constructed under this alternative would, together, convert more than ~~860~~ 770 acres to nonagricultural uses. The intermediate forebay would be located north of Twin Cities Road, between the Sacramento River and Interstate 5. The Clifton Court Forebay would be expanded to the south of the existing water surface area. RTM areas would require ~~nearly 3,160~~approximately 2,270 acres and would be located adjacent to tunnel shafts including sites just north of Intake 2, several parcels west of Interstate 5 near the intermediate forebay, ~~on northern Staten Island, on southern Staten Island,~~ on ~~southwestern~~ southern Bouldin Island, and on Byron Tract west of Clifton Court Forebay. The site west of Clifton Court Forebay would also act as a storage area for dredged material. Activities associated with tunneling are likely to occur across multiple years at RTM storage areas. Additional time would then be required for dewatering, chemical characterization, and material storage. However, through implementation of an environmental commitment to reuse RTM and dredged material or dispose of it at appropriate facilities, as described in Appendix 3B, *Environmental Commitments*, it is anticipated that the material would be removed from these areas and applied, as appropriate, as bulking material for levee maintenance, as fill material for habitat restoration projects, or other beneficial means of reuse identified for the material. Following removal of material, stockpiled topsoil at RTM storage areas

would be reapplied, and disturbed areas will be returned as near as feasible to preconstruction conditions by carefully grading to re-establish surface conditions and reconstructing features such as irrigation and drainage facilities. Approximately ~~240~~ 270 acres would be required for the intake ~~pumping plant~~ sites ~~and about 200 acres would be converted to a borrow or spoil area north of Intake 2~~ and approximately 160 acres would be required for the adjacent detour of State Route 160. Mapbook Figure M14-7 shows all of the construction features (including temporary work areas) associated with this proposed water conveyance facility alignment along with Important Farmland. Table 14-8 displays a summary of temporary and short-term acreage and permanent acreage of Important Farmland that could be converted to non-agricultural uses under implementation of each alternative.

Temporary and short-term conversion of land subject to Williamson Act contracts or in Farmland Security Zones as a result of constructing the proposed water conveyance facility

Temporary or short-term construction activities related to building the physical components of Alternative 4 would directly convert land subject to Williamson Act contracts or in Farmland Security Zones. The facilities associated with this alternative could convert approximately ~~837~~ 1,132 acres of land subject to Williamson Act contracts, including ~~115~~ 120 acres in Farmland Security Zones. For further discussion of potential incompatibilities with land use policies, see Chapter 13, *Land Use,* Impact LU-1.

Of this land subject to Williamson Act contracts or in Farmland Security Zones, intake work areas, adjacent to the proposed intakes ~~and pumping plants~~, would require the short-term conversion of approximately ~~150~~ 80 acres near the east bank of the Sacramento River between Freeport and Courtland. Canal work areas would require short-term conversion of approximately 40 acres near Byron Highway, southwest of Clifton Court Forebay. Barge unloading facilities would require short-term conversion of approximately ~~20~~ 10 acres and would be located ~~on eastern Byron Tract~~north of Clifton Court Forebay on ~~Italian Slough~~Old River, northwestern Victoria Island on Old River, northern Bacon Island on Connection Slough, northeast Mandeville Island on San Joaquin River (near the confluence with Middle River), southern Venice Island on San Joaquin River, south~~west~~ern Bouldin Island on ~~San Joaquin River~~Potato Slough, and ~~southern Staten Island~~Glannvale Tract on ~~South Mokelumne River~~Snodgrass Slough. Other temporary work areas, including those necessary for geotechnical investigations and for the construction of tunnels, conveyance of RTM, and transmission lines, would be located throughout the conveyance alignment. Mapbook Figure M14-8 shows all of the construction features (including temporary work areas) associated with this proposed water conveyance facility alignment along with land subject to Williamson Act contracts or in Farmland Security Zones. Table 14-9 displays a summary of temporary and short-term acreage and permanent acreage of land subject to Williamson Act contracts or in Farmland Security Zones that could be converted to non-agricultural uses under implementation of each alternative.

Permanent conversion of land subject to Williamson Act contracts or in Farmland Security Zones as a result of constructing the proposed water conveyance facility

Physical components of Alternative 4 would directly and permanently convert land subject to Williamson Act contracts or in Farmland Security Zones to non-agricultural uses. The facilities associated with this alternative could convert approximately ~~3,080~~2,035 acres of land subject to Williamson Act contracts, including ~~19~~ 43 acres in Farmland Security Zones. For further discussion of potential incompatibilities with land use policies, see Chapter 13, *Land Use,* Impact LU-1.

Of this land subject to Williamson Act contracts or in Farmland Security Zones, RTM areas would require more than ~~2,200~~1,360 acres and would be located adjacent to tunnel shafts including sites just north of Intake 2, several parcels west of Interstate 5 near the intermediate forebay, ~~on northern Staten Island, on southern Staten Island,~~ on south~~west~~ern Bouldin Island, and on Byron Tract west of Clifton Court Forebay. While these are considered permanent surface impacts for the purposes of impact analysis, it is anticipated that the RTM would be removed from these areas and reused, as appropriate, as bulking material for levee maintenance, as fill material for habitat restoration projects, or other beneficial means of reuse identified for the material, as described above and in Appendix 3B, *Environmental Commitments*. ~~Approximately 150 acres would be converted to a borrow or spoil area north of Intake 2.~~ The intermediate forebay and associated spillway area constructed under this alternative would, together, convert approximately 240 acres to nonagricultural uses. The intermediate forebay would be located north of Twin Cities Road, between the Sacramento River and Interstate 5. Mapbook Figure M14-8 shows all of the construction features (including temporary work areas) associated with this proposed water conveyance facility alignment along with land subject to Williamson Act contracts or in Farmland Security Zones. Table 14-9 displays a summary of temporary and short-term acreage and permanent acreage of land subject to Williamson Act contracts or in Farmland Security Zones that could be converted to non-agricultural uses under implementation of each alternative.

NEPA Effects: The temporary and short-term conversion and permanent conversion of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones to non-agricultural uses, as discussed above, would constitute an adverse effect on the physical environment. Disposal and reuse of RTM and dredged material (described in Appendix 3B, *Environmental Commitments*), along with Mitigation Measure AG-1, would be available to reduce these effects.

***CEQA Conclusion*:** Construction of physical structures associated with the water conveyance facility proposed under this alternative would occupy Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones, directly precluding agricultural use for the duration of construction. Temporary and short-term construction of facilities would convert approximately ~~1,315~~1,495 acres of Important Farmland and ~~837~~ 1,132 acres of land subject to Williamson Act contracts or in Farmland Security Zones to other uses. Physical structures would also permanently convert approximately ~~4,975~~3,909 acres of Important Farmland and ~~3,080~~2,035 acres of land subject to Williamson Act contracts or in Farmland Security Zones to other uses. As described above and in Appendix 3B, *Environmental Commitments*, it is anticipated that the RTM and dredged material would be removed from RTM storage areas (which represent a substantial portion of the permanent impact areas) and reused, as appropriate, as bulking material for levee maintenance, as fill material for habitat restoration projects, or other beneficial means of reuse identified for the material. Because these activities would convert a substantial amount of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones to non-agricultural uses, however, they are considered significant impacts on the environment. Implementation of Mitigation Measure AG-1 would reduce these impacts by implementing activities such as siting project footprints to encourage continued agricultural production; relocating or replacing agricultural infrastructure in support of continued agricultural activities; engaging counties, owners/operators, and other stakeholders in developing optional agricultural stewardship approaches; and/or preserving agricultural land through off-site easements or other agricultural land conservation interests. However, these impacts remain significant and unavoidable after implementation of this measure because (i) even after effects from the footprints of project facilities are minimized through

design, they would continue to require the conversion of substantial amounts of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones, (ii) conservation or preservation by means of acquiring agricultural land conservation interests, even at one-to-one ratio, may not avoid a net loss of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones and (iii) the proposed optional agricultural stewardship approach does not focus principally on physical effects, but rather, focuses on supporting the Delta as an evolving place by encouraging existing owners and operators to continue working on the land while maintaining the long-term viability of regional agricultural economies and the economic health of local governments and special districts in the Delta. For further discussion of potential incompatibilities with land use designations, see Chapter 13, *Land Use,* Impact LU-1.

Mitigation Measure AG-1: Develop an Agricultural Lands Stewardship Plan (ALSP) to Maintain Agricultural Productivity and Mitigate for Loss of Important Farmland and Land Subject to Williamson Act Contracts or in Farmland Security Zones

The BDCP proponents shall develop ALSPs (i) prior to the commencement of any construction activities or other physical activities associated with ~~Conservation Measure~~ CM1 that would involve adverse effects (under NEPA) or significant effects (under CEQA) on Important Farmland or land subject to Williamson Act contracts or in Farmland Security Zones, and (ii) as part of the site-specific environmental review for all other conservation measures or other site-specific project activities that could involve adverse effects (under NEPA) or significant effects (under CEQA) on Important Farmland or land subject to Williamson Act contracts or in Farmland Security Zones. For each conservation measure or site-specific project activity other than ~~Conservation Measure~~ CM1 that would cause such effects, a draft ALSP shall be included with any publicly circulated environmental document for the proposed conservation measure or project activity in order to obtain public input. The Plans shall contain the three elements identified below for this measure. If a programmatic ALSP is developed for the BDCP, parts of the BDCP, the Delta or parts of the Delta, BDCP proponents may rely on these plans to the extent that they include all the elements in this measure.

Mitigation Measure AG-1a: Promote Agricultural Productivity of Important Farmland

The BDCP proponents shall ensure that the following measures are implemented to reduce adverse effects and/or significant effects as described above if the measures are applicable and feasible. Not all measures listed below may be feasible or applicable to each conservation measure or to individual parts of each conservation measure. Rather, these measures serve as an overlying mitigation framework to be used for mitigation of impacts caused by the implementation of specific conservation measures. The applicability of measures listed below would vary based on the location, timing, nature, and feasibility of each measure.

- Early Planning
    - Describe the current land use in the project area and identify acreage of all land devoted to agricultural use, including farmland of local importance, grazing land, and confined animal agriculture.
    - Describe the extent to which the project can be part of or complement existing or planned land uses for the Delta. For BDCP, this means consulting with county governments, the Delta Protection Commission, the Delta Conservancy and other individuals and organizations that are considering plans or activities designed for

agricultural use; flood management; mitigation and enhancement relating to aquatic and terrestrial habitat; recreation; and tourism. This consultation is particularly important when there are multiple uses being considered for one specific area of land, but it is also important to look at how the project affects or fits into other plans for the region or sub-regions where the project is located.

- Project proponents should consult with farmers, local agencies and other State and federal agencies, including the California Natural Resources Agency, the California Department of Water Resources, the Central Valley Flood Protection Board, the California Department of Conservation, the California Department of Food and Agriculture, the California Department of Fish and Wildlife, the Delta Stewardship Council, the California Delta Protection Commission, the Delta Conservancy, the United States Fish and Wildlife Service, the National Marine Fisheries Service, and the U.S. Department of Agriculture, including the Natural Resources Conservation Service, to identify design features of the project, if any, that will benefit flood management, agricultural production and natural resource protections.
- Consider whether the proposed land use is consistent with State, regional and local plans. For the BDCP, this could include local General Plans, the Delta Protection Commission's Land Use and Resource Management Plan and Economic Strategy, the Delta Stewardship Council's Delta Plan, the California Water Plan Agriculture Strategy, the Delta Conservancy Strategy, the California Department of Food and Agriculture's Ag Vision; the California Natural Resources Agency's California Climate Adaptation Plan, and the California Fish and Wildlife Strategic Vision;
- Consider whether agriculture and/or habitat management activities undertaken pursuant to the proposed land use are consistent with State and local policies relating to flood protection and whether they might provide additional protection because, for example, they (i) provide flood management activities that provide additional protection for agricultural activities or (ii) prevent or divert potential higher groundwater levels that would thwart flood control efforts

- Site Related Avoidance and Mitigation
  - Site projects and project footprints to minimize the permanent conversion of Important Farmland, to nonagricultural uses.
  - When identifying and selecting project areas, give priority to public lands and existing conservation lands.
  - Where choices are possible among or between particular parcels or lands that are available for a project, project proponents should look at the characteristics of the different parcels or lands to determine whether one choice would be better from an agricultural resource perspective. If choices can be made regarding different locations for a project and still achieve the project purposes, it may be possible to avoid areas that may have more value from an agricultural resources perspective such as whether the property is (1) "high quality" farmland., (2) unique or has special values, (3) important to maintaining viability of agriculture in a certain area, (4) important to maintaining habitat lands in agriculture in a certain area.
  - Manage project operations to minimize the introduction of invasive species or weeds that may affect agricultural production on adjacent agricultural land.

- Mitigate on Site
    - Design projects so as to optimize contiguous parcels of agricultural land of a size sufficient to support their efficient use for continued agricultural production.
    - Where the construction or operation of a facility could limit access to ongoing agricultural operations, maintain a means of convenient access to these agricultural properties as part of project design, construction, and implementation.
    - At borrow sites to be returned to agricultural production, remove and stockpile, at a minimum, the upper 2 feet of topsoil and replace the topsoil after project completion as part of borrow site reclamation.
    - In areas permanently disturbed by project activities, and where topsoil is removed as part of project construction (e.g., stripping topsoil under a levee foundation) and not reused as part of the project, make the topsoil available to less productive agricultural lands that could benefit from the introduction of good-quality soil.
    - Relocate and/or replace wells, pipelines, power lines, drainage systems, and other infrastructure that are needed for ongoing agricultural uses and would be adversely affected by project construction or operation.
    - Minimize disturbance of Important Farmland and continuing agricultural operations during construction by (1) locating construction laydown and staging areas on sites that are fallow, already developed or disturbed, or are to be discontinued for use as agricultural land and (2) using existing roads to access construction areas.
    - Consult with landowners and agricultural operators to develop appropriate construction practices to minimize construction-related impairment of agricultural productivity. Practices may include coordinating the movement of heavy equipment and implementing traffic control measures.
    - Consult with landowners and agricultural operators with the goal of sustaining existing agricultural operations, at the landowners' discretion, until the individual agricultural parcels are needed for project construction.
- Consult with landowners and agricultural operators on what role they can take if they wish be involved in project development. Issues to consider include whether:
    - Owner(s) or operator(s) could carry out project activities on their land. To the extent that Important Farmland is part of the project, consideration should be given to providing flexibility to the farmer. To the extent that Important Farmland is part of the project, consideration should also be given to developing working landscapes[1] on project lands

[1] The Cal-Fed Working Landscapes Subcommittee of the Bay Delta Public Advisory Committee defined a working landscape as "a place where agriculture and other natural resource-based economic endeavors are conducted with the objective of maintaining the viability and integrity of its commercial and environmental values. On a working landscape, both private production, as well as public regulatory decisions account for the sustainability of families, businesses and communities, while protecting and enhancing the landscape's ecological health. The working landscape is readily adaptable to change according to economic and ecosystem needs. With respect to CALFED, a working landscape is both an objective and a means to achieve it. A working landscape is efficiently managed largely by private agricultural landowners and managers who are supported and encouraged to manage their lands in ways that fulfill CALFED goals, allowing them to pursue ecological health goals while yielding economic returns

- Some or all of the ownership interests on any project land could remain in private hands or in the hands of a private conservancy in order to keep the property in nongovernmental ownership and thereby on the County tax base;
- Owner(s) and/or operator(s) of land displaced by project facilities and activities could maintain or obtain full or partial ownership of the land on which project activities will be carried out or could be compensated to manage said land;
- Existing agricultural operations on lands could be modified, through such things as crop change, new integrated pest management strategies, altered water usage, or full or partial conversion to habitat uses, in a manner that renders such operations consistent with the goals and objectives of the project by enhancing environmental outcomes in a manner beneficial to species covered by the project;
- Limited agriculture could take place within areas identified for habitat restoration under the project without undermining the achievement of the project goals and objectives;
- Subsidies to allow economically viable rice farming on particular lands could be justified due to the environmental benefits of such rice farming such as the stabilization of subsiding areas or the creation of sinks for greenhouse gases and methylmercury;
- Subsidies to assist the owner(s) and/or operator(s) to make a viable living managing wetlands or other habitat areas could be justified due to the environmental benefits of wetlands or habitat such as the stabilization of subsiding areas or the safer accumulation and isolation of greenhouse gases and methylmercury;

- Implementation
  - The plans should include a framework that encourages adaptive management with regard to agricultural land management.
  - The plans should include reporting and monitoring actions necessary to show that the actions agreed to were being carried out.

Mitigation Measure AG-1b: Minimize Impacts on Land Subject to Williamson Act Contracts or in Farmland Security Zones

The BDCP proponents shall ensure that the following measures are implemented as applicable to reduce effects and preserve agricultural uses on lands with designated agricultural preserves and subject to Williamson Act contracts or in Farmland Security Zones:

- The BDCP proponents shall comply with applicable provisions of California Government Code Sections 51290–51295 with regard to acquiring lands within agricultural preserves and subject to Williamson Act contracts. Sections 51290(a) and 51290(b) specify that State policy, consistent with the purpose of the Williamson Act to preserve and protect agricultural land, is to avoid locating public improvements and any public utilities improvements in agricultural preserves, whenever feasible. If it is infeasible to locate such

on investments, and generating tax revenues that support their local governments" (California Bay-Delta Public Advisory Committee 2002).

improvements outside of a preserve, they shall be located on land that is not under contract, if feasible.

- More specifically, the BDCP proponents shall comply with the following basic requirements stated in the California Government Code:
  - Whenever it appears that land within a preserve or under contract may be required for a public improvement, the DOC and the city or county responsible for administering the preserve must be notified (Section 51291(b)).
  - Within 30 days of being notified, DOC and the city or county must forward comments, which will be considered by the proponents of the public improvement (Section 51291(b)).
  - A public improvement generally may not be located within an agricultural preserve unless the BDCP proponents make specific findings to the effect that (1) the location is not based primarily on the lower cost of acquiring land in an agricultural preserve and (2) for agricultural land covered under a contract for any public improvement, no other land exists within or outside the preserve where it is reasonably feasible to locate the public improvement (Sections 51921(a) and 51921(b)). Findings do not need be made if the action falls within one of the exemptions in Section 51293. The contract is normally terminated when land is acquired by eminent domain or in lieu of eminent domain (Section 51295).
  - DOC must be notified within 10 working days upon completion of the acquisition (Section 51291(c)).
  - DOC and the city or county must be notified before completion of any proposed work of any significant changes related to the public improvement (Section 51291(d)).
  - If, after acquisition, the acquiring public agency determines that the property would not be used for the proposed public improvement, DOC and the city or county administering the involved preserve must be notified before the land is returned to private ownership. The land will be reenrolled in a new contract or encumbered by an enforceable restriction at least as restrictive as that provided by the Williamson Act (Section 51295).
  - Work with the county where Williamson Act land is located to expand Williamson Act authorized uses to include open space/habitat lands in Williamson Act Preserves.

Mitigation Measure AG-1c: Consideration of an Optional Agricultural Land Stewardship Approach or Conventional Mitigation Approach

Where project proponents have determined that compliance with Mitigation Measures AG-1a and AG-1b is not sufficient to mitigate to a less than significant or adverse level the impacts from the conversion of Important Farmland or of land subject to Williamson Act contracts or in Farmland Security Zones, they shall undertake additional feasible mitigation pursuant to this measure (AG-1c).

Exceptions to this requirement shall apply where the mitigation already being required for the biological resource values for the land at issue (e.g., for its value as habitat for Swainson's hawk) pursuant to the cultivated lands natural community strategy of ~~Conservation Measure~~ CM3 already requires the equivalent of 1:1 mitigation (based on the net area of land remaining in agriculture) for impacts to Important Farmland or of land subject to Williamson Act contracts or

in Farmland Security Zones, provided that the easements for biological values also incorporate agricultural preservation.

The BDCP proponents shall determine the nature and form of any necessary additional mitigation after consultation with, at least, all of the following: (i) the County in which the affected property is located; (ii) the owner(s) and/or operator(s) of said property; (iii) the California Natural Resources Agency; (iv) the California Department of Water Resources; (v) the Central Valley Flood Protection Board; (vi) the California Department of Conservation; (vii) the California Department of Food and Agriculture; (viii) the California Department of Fish and Wildlife; (ix) the Delta Stewardship Council; (x) the California Delta Protection Commission; (xi) the Delta Conservancy; (xii) the United States Fish and Wildlife Service; (xiii) the National Marine Fisheries Service; and (xiv) the U.S. Department of Agriculture, including the Natural Resources Conservation Service. After consulting with these agencies, entities, and/or individuals, the BDCP proponents shall determine whether or not, under the circumstances surrounding the conversion of particular agricultural lands, the best overall approach to the additional required mitigation is the conventional use of agricultural land conservation property interests (see discussion below on Conventional Mitigation Approach). In making this determination, the BDCP proponents shall give considerable weight to the willingness of the County in which the affected property is located and the owner(s) and/or operator(s) of said property to participate in an Optional Agricultural Land Stewardship Approach, which would seek opportunities to protect and enhance agriculture in the Delta as part of the project landscape and focus on maintaining economic activity on agricultural lands instead or in conjunction with the Conventional Mitigation Approach for purposes of CEQA/NEPA mitigation. Where the County and the owner(s) and/or operator(s) have a preference for participating in an Optional Agricultural Land Stewardship Approach, the BDCP proponents shall attempt to develop a feasible Optional Agricultural Land Stewardship alternative mitigation program acceptable not only to the County and the owner(s) and/or operator(s), but also to the California Department of Fish and Wildlife, the United States Fish and Wildlife Service, and the National Marine Fisheries Service. Where the BDCP proponents, despite a good faith effort, cannot succeed in achieving the consensus necessary to carry out a feasible Optional Agricultural Land Stewardship Approach, they shall undertake instead a Conventional Mitigation Approach, where necessary and feasible, based on the use of agricultural conservation property interests or other measures requiring the preservation or, enhancement of other land of similar agricultural quality in areas that are threatened with encroaching urban development.

Specific strategies that could be used in formulating an Optional Agricultural Land Stewardship Approach are described in Appendix 14B, *Agricultural Stewardship Strategies*. In determining the potential nature and form of an Optional Agricultural Land Stewardship Approach, the BDCP proponents shall, at a minimum, consider the following, as applicable:

- whether there is Important Farmland in the Delta reasonably accessible to the BDCP proponents and/or to the owner(s) and/or operators for use for agriculture and/or habitat management in a manner consistent with the goals and objectives of the BDCP;
- whether there is Important Farmland that might not remain in agriculture if it was not protected by means of an agricultural conservation property interest because of threats of urban development (e.g. in the secondary zone in the Delta) or wind/solar and other non-renewable energy projects, or the productive value of which is so high, it should remain in

agriculture instead of being used for restoration or other open-space projects because, for example, it is:

- unique or has special values
- important to maintaining viability of agriculture in the region
- critical to prevent a "tipping" point that could lead to elimination of a crop in the region
- important to maintaining habitat lands in agriculture in the region

- whether Agricultural Land Stewardship Strategies[2] benefit agricultural lands by providing feasible CEQA/NEPA mitigation (or providing funding for such mitigation) for potential significant environmental agricultural impacts at both the farm and the regional level. In determining whether the funds necessary to make an Optional Agricultural Land Stewardship Approach feasible are available, the BDCP proponents shall be guided by the principle that funds that might otherwise be used for off-site preservation or another form of compensation may be made available instead to assist with making the Optional Agricultural Land Stewardship Approach work. Such strategies could include:
  - Potential strategies to help maintain farming in the Delta
    - Improve flood protection (Strategy 1)
    - Provide technical and financial assistance to help farmers maintain or improve agricultural production (Strategy 2)
    - Provide technical and financial assistance to help farmers comply with regulatory requirements for water quality (Strategy 3)
    - Control terrestrial weeds (Strategies 6a, 6b, and 6c)
    - Reduce conflict between agriculture and nearby habitat lands by creating a "good neighbor" policy (Strategy 7)
    - Work with other interests to explore the value of reinstating state funding of Williamson Act subventions (Strategy 8)
    - Work with counties to expand Williamson Act authorized uses to include open space/habitat lands in Williamson Act Preserves (Strategy 9)
    - Investigate options for in lieu tax revenue for counties and payments for local districts (Strategy 10)
    - Provide for Agricultural Conservation Easements (Strategy 11)
  - Potential strategies that provide incentives for conservation on farmland
    - Partner with others to maintain and enhance environmental quality on farmland (Strategy 12)
    - Compensate farmers to manage agricultural land as habitat for wildlife (Strategy 13)

[2] Strategies developed so far, and other materials relating to their development and implementation, can be found at https://bdcpdfl.water.ca.gov/home. These are given as examples to consider at this time. It is expected that existing strategies will evolve and change over time and that additional strategies will be developed.

- Provide incentives for farmers to take part in a market-based conservation program (Strategy 14)

  - Potential strategies to manage land for purposes other than conventional crop production

    - Provide technical and financial assistance to stabilize or reverse land subsidence on Delta island (Strategy 15)
    - Assist landowners to produce and sell greenhouse gas offset credits in the AB 32 Cap-and-Trade program (Strategy 16)
    - Compensate farmers to manage habitat lands (Strategy 17)
    - Designate carbon sequestration and subsidence reversal crops as agricultural production for regulatory and incentive programs (Strategy 18)

  - Potential strategies that provide for economic development and other benefits

    - Provide technical and financial assistance to develop an economic study of agricultural activity and related infrastructure (Strategy 19)
    - Provide technical and financial assistance for to promote economic development (Strategy 20)
    - Provide technical and financial assistance to promote transportation infrastructure improvements (Strategy 21)
    - Provide technical assistance to farmers to help in complying with the regulatory framework present in the Delta (Strategy 22)
    - Provide technical, risk reduction, promotion, and financial assistance for farmers to manage land to incorporate recreation and tourism (Strategy 23)
    - Work with others to better align the regulatory system to help farmers who engage in ecological restoration and enhancement projects (Strategy 24)
    - Develop Agricultural Land Stewardship Plans (Strategy 25)

- In addition, the BDCP proponents shall explore the following funding sources to implement strategies that are in addition to those required under CEQA/NEPA in order to maintain agriculture In the Delta. These strategies include those listed above for CEQA/NEPA mitigation.

  - Work with the California Air Resources Board (CARB) to establish a greenhouse gas offset market using credits created through the development and restoration of wetlands.
  - Seek available funding from CARB's "Cap and Trade" program developed pursuant to the Global Warming Act Solutions Act of 2006 (AB 32).
  - Work with others to explore the value of reinstating state funding for Williamson Act subventions from Cap and Trade Funding or other sources
  - Consider recommending to the Governor and Legislature that funds for be included in any bond measure(s) placed on the statewide ballot (e.g. the Delta Investment Fund authorized by the Delta Reform Act).

- Work with other governmental and private entities to identify other funds that can be used for the Optional Agricultural Land Stewardship Approach.

Strategy for implementing a Conventional Mitigation Approach. Where the BDCP proponents, despite a good faith effort, cannot succeed in achieving the consensus necessary to carry out a feasible Optional Agricultural Land Stewardship Approach, they shall undertake instead, where necessary and feasible, a Conventional Mitigation Approach based on the purchase of property interests in agricultural lands (e.g., conservation easements) or other compensation arrangements (collectively referred to as "agricultural conservation property interests"), requiring the preservation and/or enhancement of other land of similar agricultural quality. The standard ratio for purchase of agricultural conservation property interests to mitigate for permanently converted Important Farmland not included, as discussed above, as part of mitigation for biological resources, shall be at a ratio of 1:1 for similar types of Important Farmland.

Where feasible, mitigation shall generally result in the purchase of agricultural conservation property interests, such as easements on other agricultural lands of the same overall quality and acreage either directly or indirectly. The two preferred forms of mitigation in this context shall be (i) the inclusion of sufficient acreages within agricultural preserves within BDCP lands to satisfy CEQA and NEPA agricultural resource mitigation in addition to meeting BDCP objectives under the Endangered Species Act and California's Natural Community Conservation Planning Act and (ii) reliance on the California Farmland Conservancy Program or on other established programs in the Delta supported by the county where the project is located, the Delta Stewardship Council, the Delta Planning Commission, or the Delta Conservancy. Where the BDCP proponents choose to rely on the latter strategy, they shall confirm, prior to submitting funds into any program both (a) that the program meets the standards under CEQA case law for a "reasonable mitigation plan" and (b) that they can spend the funds at issue for the preservation and, where appropriate, the enhancement, of land that is reasonably proximate to the land being impacted and of a similar quality or extent. Where these two preferred options are unavailable or infeasible, the BDCP proponents shall be responsible for purchasing agricultural conservation property interests on their own.

Where feasible, agricultural land conservation interests should be acquired in the county in which the conversion will take place, provided that any such land either would be at-risk for conversion from agricultural uses in the absence of such long-term protection, unless such purchases would undermine the overall BDCP conservation strategy by potentially putting off-limits lands that may be needed for habitat purposes during the permit duration of the BDCP (i.e., up until 2060), or is not necessary for other habitat conservation plans. Thus, acquisition of such agricultural land conservation interests cannot be located in areas targeted for habitat restoration if doing so would thwart implementation of the long-term habitat restoration objectives of the BDCP.

Where a property identified for purchase of an agricultural land conservation interest serves non-agricultural purposes such as providing wildlife habitat or flood control or flood management benefits, the terms of the agricultural land conservation interest shall require the farm operator to continue to use the property in a manner that preserves these benefits (e.g., by continuing to support certain crop types known to provide, or be consistent with, such benefits) unless similar benefits are provided through some other means. The value of the agricultural

land conservation interest would need to take such limitations on agricultural practices into account.

Where Important Farmland of the same caliber as the Important Farmland being converted is not available within the county in which the conversion will take place, the agricultural land conservation interest may occur in another county, with a preference for counties within the greater Sacramento and Stockton metropolitan areas, as long as the property to be purchased or encumbered is at-risk for conversion from agricultural uses to developed uses from encroaching urban development in the absence of such long-term protection, and as long as such purchase does not undermine the overall BDCP conservation strategy by potentially putting off-limits lands that may be needed for habitat purposes during the permit duration of the BDCP (i.e., up until 2060).

Impact AG-2: Other Effects on Agriculture as a Result of Constructing and Operating the Proposed Water Conveyance Facility

Effects on agriculture as a result of changes in groundwater elevation

Construction and operation of water conveyance facilities would indirectly affect agriculture by causing seepage or changes in the elevation of groundwater within the study area, as discussed in Chapter 7, *Groundwater*, Impacts GW-1, GW-2, GW-4, and GW-5. Localized effects related to dewatering activities in the vicinity of intakes, the intermediate forebay, ~~pump stations~~ and the expanded Clifton Court Forebay would temporarily lower groundwater levels by up to 10 feet and 20 feet, respectively. The ~~pumping plants~~intakes would be located just east of the Sacramento River, south of Freeport and north of Courtland, and the intermediate forebay would be located on Glannvale Tract near Twin Cities Road. The area of expansion for the Clifton Court Forebay would be adjacent and south of the existing forebay. Groundwater would return to pre-pumping levels over the course of several months. During long-term operations of the water conveyance, increases in the groundwater level of 10 feet or more could also occur in the vicinity of the intermediate forebay and expanded area of the Clifton Court Forebay in the absence of design features to minimize seepage, due to groundwater recharge from these facilities ~~(the intermediate forebay would be located on Glannvale Tract near Twin Cities Road)~~. However, the forebays would be constructed to comply with the requirements of the DSD which includes design provisions to minimize seepage. These design provisions would minimize seepage under the embankments and onto adjacent properties. Once constructed and placed in operation, the operation of the forebays would be monitored to ensure seepage does not exceed performance requirements. In the event seepage were to exceed these performance requirements, the BDCP proponents would modify the embankments or construct seepage collection systems that would ensure any seepage from the forebays would be collected and conveyed back to the forebay or other suitable disposal site. However, operation of Alternative 4 would result in local changes in shallow groundwater flow patterns adjacent to the expanded Clifton Court Forebay, where groundwater recharge from surface water would result in groundwater level increases. If existing agricultural drainage systems adjacent to the forebay are not adequate to accommodate the additional drainage requirements, operation of the forebay could interfere with agricultural drainage. Areas in which crop roots are exposed to a surplus of water could result in root rot, compromising the viability of certain crops, particularly those with deep roots (Refer to Section 14.1, *Environmental Setting/Affected Environment,* for root depths by crop type). These effects could prevent agricultural uses on land in these areas.

Effects on agriculture as a result of changes in salinity

Under Alternative 4, Scenarios H1-H4, the operation of new physical facilities combined with hydrodynamic effects of habitat restoration activities under CM2 and CM4, could indirectly affect agriculture by causing changes to the quality of irrigation water in parts of the study area. Relative to the No Action Alternative, modeling indicates that operation of the water conveyance facility would result in an increase in the number of days when electrical conductivity objectives would be exceeded or out of compliance in some locations. Locations where these frequencies would increase include Sacramento River at Emmaton, San Joaquin River at San Andreas Landing, San Joaquin River at Jersey Point, Old River near Middle River, and Old River at Tracy Bridge.

The Sacramento River at Emmaton EC objective would be exceeded on ~~23~~27–~~25~~29% of days, compared with ~~12~~14% under the No Action Alternative. The frequency at which this location would be out of compliance with the EC objective would increase from ~~22~~25% of days (under the No Action Alternative) to ~~35~~40–~~38~~43% of days, depending on which operational scenario is implemented. The San Andreas Landing EC objective would be exceeded on 3–~~4~~6% of days, compared with 1% under the No Action Alternative. The frequency at which this location would be out of compliance with the EC objective would increase from 1% of days (under the No Action Alternative) to 5–~~7~~9% of days, depending on which operational scenario is implemented. The Old River at Tracy Bridge objective would be exceeded on 5–6% of days, compared with 4% of days under the No Action Alternative. The frequency at which this location would be out of compliance with the EC objective would increase from 8% of days (under the No Action Alternative) to 11–12% of days, depending on which operational scenario is implemented. The Old River near Middle River objective would be exceeded on 3% of days, the same as under the No Action Alternative (though there would be an increase in the total number of days in exceedance). The frequency at which this location would be out of compliance with the EC objective would increase from 7% of days (under the No Action Alternative) to 8% of days. Compared to the No Action Alternative, Scenarios H1– and H3 would also result in an increase in the frequency of days out of compliance with the EC objective for San Joaquin River at Jersey Point. Scenarios H2 and H4 would result in a small increase in days in which this objective would be exceeded but a decrease in the days in which it would be out of compliance.

Following implementation of Scenarios H1–H4, there would ~~be a decrease in the number of days in which the EC objective at Sacramento River at Emmaton/Three Mile Slough near Sacramento River would be exceeded or out of compliance. There would~~ be a decrease or no change in the frequency of days in exceedance or out of compliance at three other locations: S. Fork Mokelumne River at Terminous, San Joaquin River at Vernalis, and San Joaquin River at Brandt Bridge.

Average EC levels would decrease at western Delta compliance locations, except Emmaton under Scenarios H1 and H2, and would increase at the two interior Delta compliance locations and some south Delta compliance locations. Where salinity levels decrease, higher quality irrigation water could benefit agricultural activities by reducing potential restrictions related to yields and crop selection. For the entire period modeled and the drought period modeled, average EC levels would increase at Emmaton in the western Delta (Scenarios H1 and H2 only). For the entire period modeled, average EC levels would also increase at interior and southern Delta locations; the average EC increase would be 5-15% at interior Delta locations and 2% or less at southern Delta locations, depending on the operations scenario (Chapter 8, *Water Quality*, Appendix 8H, Tables EC-15A through EC-15D). During the drought period modeled, average EC would increase at interior and southern Delta locations. The greatest average EC increase during the drought period modeled would occur in the interior Delta in the San Joaquin River at San Andreas Landing (7–13%

depending on the operations scenario); the increase at the other locations would be <1–9% (Chapter 8, *Water Quality*, Appendix 8H, Tables EC-15A through EC-15D). Modeling of drought years estimates EC reaching levels as high as 1.644 dS/m at the Emmaton compliance location under Scenario H1. The comparison to the No Action Alternative reflects changes in EC due only to the different operational components of Scenarios H1-H4 of Alternative 4. Increased salinity levels suggest that a number of crops using this irrigation water may not be able to reach full yields, as reported in Table 14-6. In general, agricultural activities would be anticipated to continue on lands using these sources. Complete water quality modeling results are discussed in Chapter 8, *Water Quality*, Section 8.3.3.9, Impact WQ-11 and Appendix 8H, Tables EC-4 and EC-15A through EC-15D.

Relative to Existing Conditions, modeling indicates that operation of the water conveyance facility would result in an increase in the number of days when electrical conductivity objectives would be exceeded or out of compliance in the Sacramento River at Emmaton, San Joaquin River at San Andreas Landing, San Joaquin River at Jersey Point, Old River near Middle River, and Old River at Tracy Bridge.

The percent of days the Emmaton EC objective would be exceeded for the entire period modeled (1976–1991) would increase from 6% under Existing Conditions to ~~23~~27–~~25~~29%, depending on the operational scenario, and the percent of days out of compliance would increase from 11% under Existing Conditions to ~~35~~40–~~38~~43%, depending on the operational scenario. The San Andreas Landing EC objective would be exceeded on 3–~~4~~6% of days, compared with 1% under Existing Conditions. The frequency at which this location would be out of compliance with the EC objective would increase from 1% of days (under Existing Conditions) to 5–~~7~~9% of days, depending on which operational scenario is implemented. The Old River at Tracy Bridge objective would be exceeded on 5–6% of days, compared with 4% of days under Existing Conditions. The frequency at which this location would be out of compliance with the EC objective would increase from 10% of days (under Existing Conditions) to 11–12% of days, depending on which operational scenario is implemented. The Old River near Middle River objective would be exceeded on 3% of days, the same as under Existing Conditions (though there would be an increase in the total number of days in exceedance). The frequency at which this location would be out of compliance with the EC objective would not change compared to Existing Conditions (8% of days out of compliance).

As discussed in Chapter 8, *Water Quality*, Impact WQ-11, sensitivity analyses suggest that many of these modeled exceedances are a result of modeling artifacts or a result of operating rules used by the CALSIM II model under extreme hydrologic and operational conditions where there is not enough water supply to meet all requirements. In these cases, CALSIM II uses a series of operating rules to reach a solution that is a simplified version of the very complex decision processes that SWP and CVP operators would use in actual extreme conditions. Thus, it is unlikely that the Emmaton objective would actually be violated due to dead pool conditions, as suggested by modeling results. In the case of San Andreas Landing, the small number of modeled exceedances not attributable to modeling artifacts would be small in magnitude, last only a few days, and could be addressed with real time operations of the SWP and CVP (see Chapter 8, *Water Quality*, Section 8.3.1.1, in Appendix A for a description of real time operations of the SWP and CVP). However, the results at Emmaton indicate that water supply could be either under greater stress or under stress earlier in the year, and EC levels at Emmaton and in the western Delta may increase as a result, leading to EC degradation and increased possibility of adverse effects to agricultural beneficial uses.

Compared to ~~both~~ Existing Conditions, there would be a decrease or no change in the ~~number of days in which the EC objective in Sacramento River at Emmaton/Three Mile Slough near~~

~~Sacramento River and the objective in San Joaquin River at Jersey Point would be exceeded or out of compliance following implementation of Scenarios H1–H4. There would be a decrease or no change in the~~ frequency of days in exceedance or out of compliance at ~~three other~~four locations: San Joaquin River at Jersey Point, S. Fork Mokelumne River at Terminous, San Joaquin River at Vernalis, and San Joaquin River at Brandt Bridge.

Average EC levels at the western and southern Delta compliance locations would decrease (except at Emmaton) from 1–36% for the entire period modeled and 2–33% during the drought period modeled (1987–1991) (Chapter 8, *Water Quality*, Appendix 8H, Tables EC-15A through EC-15D). Where salinity levels decrease, higher quality irrigation water could benefit agricultural activities by reducing potential restrictions related to yields and crop selection. At Emmaton, there would be an increase in average EC under all operational scenarios, though the increase would be less for scenarios H3 and H4 (0% for entire period; 8% for drought period) than for scenarios H1 and H2 (13–14% for entire period; 12–13% for drought period). There would be increases in average EC at two interior Delta locations under all operational scenarios: the S. Fork Mokelumne River at Terminous average EC would increase 5% for the entire period modeled and 4% during the drought period modeled; and San Joaquin River at San Andreas Landing average EC would increase 0–9% for the entire period modeled and 7–13% during the drought period modeled. On average, EC would increase at San Andreas Landing from March through September under all operations scenarios; Scenarios H1, H2, and H4 also would increase EC at this location in February and Scenarios H1 and H2 would increase EC in October. Average EC in the S. Fork Mokelumne River at Terminous would increase during all months (Chapter 8, *Water Quality*, Appendix 8H, Tables EC-15A through EC-15D). Modeling of drought years estimates EC reaching levels as high as 1.644 dS/m at the Emmaton compliance location. The comparison to Existing Conditions reflects changes in EC due to both Alternative 4 operations (including north Delta intake capacity of 9,000 cfs and numerous other operational components of Scenarios H1–H4) and climate change/sea level rise. Increased salinity levels suggest that a number of crops using this irrigation water may not be able to reach full yields, as reported in Table 14-6. In general, agricultural activities would be anticipated to continue on lands using these sources. Complete water quality modeling results are discussed in Chapter 8, *Water Quality*, Section 8.3.3.9, Impact WQ-11 and Appendix 8H, Tables EC-4 and EC-15A through EC-15D.

Effects on agriculture as a result of disruptions to agricultural infrastructure

Temporary construction activities and the permanent footprints associated with physical features constructed as part of this alternative could create conflicts with existing irrigation and drainage facilities throughout the study area. The conveyance alignment constructed under this alternative would cross or interfere with approximately ~~46~~ 43 miles of agricultural delivery canals and drainage ditches, including approximately ~~19 miles on Staten Island, 11~~ 13 miles on Byron Tract~~, and 6~~ 7 miles on Bouldin Island, and 5 miles on Staten Island (primarily due to assumed geotechnical investigation areas). Construction activities requiring excavation or use of land where irrigation canals are currently located could disrupt the delivery of water to crops, which would compromise a key condition for the productive use of the land for agriculture. Similarly, where construction or the long-term placement of conveyance facilities associated with this alternative requires an existing agricultural drainage facility to be disconnected, high groundwater levels could expose crops to soil conditions that would prevent the continuation of most agricultural activities on the affected land. Thus, where irrigation or drainage infrastructure is disconnected from the farmland it serves, continued agricultural use of the land could be jeopardized.

NEPA Effects: Considered together, construction and operation of the water conveyance facility under this alternative could create indirect but adverse effects on agriculture by converting substantial amounts of Important Farmland to other uses through changes to groundwater elevation in localized areas and disruption of drainage and irrigation facilities. Effects of this alternative related to water quality could be adverse or beneficial, depending on the location. Implementation of Mitigation Measures AG-1, GW-1, GW-5, and WQ-11 will reduce the severity of these adverse effects.

***CEQA Conclusion*:** Water conveyance facility construction and operation could create a significant adverse impact on agriculture by converting substantial amounts of Important Farmland to other uses through changes to groundwater elevation in localized areas and disruption of drainage and irrigation facilities. Effects of this alternative related to water quality could be adverse or beneficial, depending on the location. Implementation of Mitigation Measures AG-1, GW-1, GW-5, and WQ-11 will reduce the severity of these impacts by implementing activities such as siting project footprints to encourage continued agricultural production; monitoring changes in groundwater levels during construction; offsetting water supply losses attributable to construction dewatering activities; monitoring seepage effects; relocating or replacing agricultural infrastructure in support of continued agricultural activities; identifying, evaluating, developing, and implementing feasible phased actions to reduce EC levels; engaging counties, owners/operators, and other stakeholders in developing optional agricultural stewardship approaches; and/or preserving agricultural land through off-site easements or other agricultural land conservation interests. However, these impacts remain significant and unavoidable after implementation of these measures because (i) replacement water supplies associated with losses attributable to construction dewatering activities may not meet the preexisting demands or planned land use demands of the affected party, (ii) the feasibility and effectiveness of phased actions to reduce EC levels is uncertain, (iii) conservation or preservation by means of acquiring agricultural land conservation interests, even at one-to-one ratio, may not avoid a net loss of Important Farmland and (iv) the proposed optional agricultural stewardship approach does not focus principally on physical effects, but rather, focuses on supporting the Delta as an evolving place by encouraging existing owners and operators to continue working on the land while maintaining the long-term viability of regional agricultural economies and the economic health of local governments and special districts in the Delta.

In addition to and to supplement Mitigation Measure WQ-11, the BDCP proponents have incorporated into the BDCP, as set forth in EIR/EIS Appendix 3B, *Environmental Commitments*, a separate, non-environmental commitment to address the potential increased water treatment costs that could result from electrical conductivity effects on agricultural water purveyor operations. Potential options for making use of this financial commitment include funding or providing other assistance towards acquiring alternative water supplies or towards modifying existing operations when levels of electrical conductivity at a particular location reduce opportunities to operate existing water supply diversion facilities. Please refer to Appendix 3B, *Environmental Commitments*, for the full list of potential actions that could be taken pursuant to this commitment in order to reduce the water quality treatment costs associated with water quality effects relating to chloride, electrical conductivity, and bromide.

Mitigation Measure AG-1: Develop an Agricultural Lands Stewardship Plan (ALSP) to Maintain Agricultural Productivity and Mitigate for Loss of Important Farmland and Land Subject to Williamson Act Contracts or in Farmland Security Zones

Please see Mitigation Measure AG-1 under Impact AG-1 in the discussion of Alternative 4.

Mitigation Measure GW-1: Maintain Water Supplies in Areas Affected by Construction Dewatering

Please see Mitigation Measure GW-1 under Impact GW-1 in the discussion of Alternative 1A in Chapter 7, *Groundwater.*

Mitigation Measure GW-5: Agricultural Lands Seepage Minimization

Please see Mitigation Measure GW-5 under Impact GW-5 in the discussion of Alternative 1A in Chapter 7, *Groundwater.*

Mitigation Measure WQ-11: Avoid, Minimize, or Offset, as Feasible, Reduced Water Quality Conditions

Please see Mitigation Measure WQ-11 under Impact WQ-11 in the discussion of Alternative 1A in Chapter 8, *Water Quality*.

Impact AG-3: Temporary Conversion, Short-Term Conversion, and Permanent Conversion of Important Farmland or of Land Subject to Williamson Act Contracts or in Farmland Security Zones as a Result of Implementing the Proposed Conservation Measures 2–11, 13, 15, 16, 20, and 21

Conversion of Important Farmland as a result of implementing the proposed Conservation Measures 2–11, 13, 15, 16, 20, and 21

While locations have not been selected, implementation of conservation measures for habitat restoration and channel margin habitat enhancement would likely occupy existing state-recognized Important Farmland, directly precluding agricultural use. Construction activities for the conservation measures associated with this alternative may also result in temporary conversion of Important Farmland.

Alternative 4 would restore approximately 83,800 acres under conservation measures geared toward the restoration of tidal wetland habitat (CM4), seasonally-inundated floodplain (CM5), riparian habitat (CM7), grassland communities (CM8), vernal pool complex habitat (CM9), and nontidal marsh areas (CM10). Additionally, 20 linear miles of channel margin habitat would be enhanced. Under this measure, setback levees could potentially encroach upon Important Farmland. Additionally, earthwork activities associated with restoration activities could remove land from agricultural production. To maintain these areas, access roads and other facilities may also be necessary. Implementation of these restoration activities would occur in phases over the 50-year permit period, as summarized in Table 3-4 in Chapter 3, *Description of the Alternatives*. Additionally, in selecting sites for seasonally inundated floodplain restoration under CM5, compatibility with ongoing agricultural uses would be considered and agricultural production could continue on acquired lands so long as agricultural practices are compatible with the primary goal of restoring habitat for covered fish and wildlife species (see Chapter 3, Section 3.4.5.3.2 of the BDCP for further detail).

Physical construction of facilities associated with other conservation measures may also occupy small areas of Important Farmland. For instance, installation of nonphysical fish barriers may require an access road or storage facility on land under one of the Important Farmland designations. However, the effects of these measures on Important Farmland are anticipated to be minor, particularly when compared with the larger restoration actions described above.

Because locations have not been selected for these activities, the extent of this effect is unknown and a definitive conclusion cannot be reached. However, based on the large proportion of the Conservation Zones designated as Important Farmland, it is anticipated that a substantial area of Important Farmland would be directly converted to habitat under this alternative.

Conversion of land subject to Williamson Act contracts or in Farmland Security Zones as a result of implementing the proposed Conservation Measures 2–11, 13, 15, 16, 20, and 21

Conservation areas associated with the project would occupy land subject to Williamson Act contracts or in Farmland Security Zones, leading to the potential cancellation of existing contracts and the direct conversion of agricultural land to other uses.

As described above, Alternative 4 would restore approximately 83,800 acres under conservation measures intended to restore various natural communities. Additionally, 20 linear miles of channel margin habitat would be enhanced. Under *CM6 Channel Margin Enhancement*, setback levees could potentially encroach on land subject to Williamson Act contracts or in Farmland Security Zones. Associated earthwork activities could also conflict with contract lands. To maintain these areas, access roads and other facilities may also be necessary.

Because locations have not been selected for these activities, the extent of this effect is unknown. However, based on the large proportion of the Conservation Zones that represent land subject to Williamson Act contracts or in Farmland Security Zones, it is anticipated that this alternative would convert a substantial area of land subject to Williamson Act contracts or in Farmland Security Zones.

Construction of physical facilities associated with other conservation measures may also occupy small areas of land subject to Williamson Act contracts or in Farmland Security Zones. For example, construction or expansion of a conservation fish hatchery under CM18 could potentially conflict with Williamson Act contracts. Similar effects may arise from conservation measures that would install non-physical fish barriers. However, the effects of these measures on land subject to Williamson Act contracts or in Farmland Security Zones are anticipated to be minor, particularly when compared with the larger restoration actions described above.

NEPA Effects: Because locations have not been selected for these activities, the extent of this effect is unknown and a definitive conclusion cannot be reached. However, based on the large proportion of land in the conservation zones designated as Important Farmland and/or subject to Williamson Act contracts or in Farmland Security Zones, it is anticipated that a substantial area of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones would be directly converted to habitat purposes under this alternative, resulting in an adverse effect on the environment. While conflicts with or cancellation of Williamson Act contracts would not—by itself—constitute an adverse effect on the quality of the human environment, the related conversion of the underlying agricultural resource would result in such an effect. Mitigation Measure AG-1 would be available to lessen the severity of these potential effects. Also, under the provisions of Government Code §51223, it may be feasible to rescind Williamson Act contracts for agricultural use, and enter into open space contracts under the Williamson Act, or open space easements pursuant to the Open Space Easement Act. To the extent this mechanism is used, it would eliminate the Williamson Act conflicts otherwise resulting from changes from agriculture to restoration and mitigation uses. For further discussion of potential incompatibilities with land use policies, see Chapter 13, *Land Use,* Impact LU-4.

***CEQA Conclusion*:** This alternative would restore approximately 83,800 acres under conservation measures geared toward the restoration of various natural communities. Additionally, 20 linear miles of channel margin habitat would be enhanced. Implementation of restoration activities and other conservation measures could result in conversion of a substantial amount of Important Farmland and conflict with land subject to Williamson Act contracts or in Farmland Security Zones, resulting in a significant impact on agricultural resources in the study area. Further evaluation of these impacts would depend on additional information relating to the location of these activities and other detailed information. Implementation of Mitigation Measure AG-1 will reduce the severity of these impacts by implementing activities such as siting features to encourage continued agricultural production; relocating or replacing agricultural infrastructure in support of continued agricultural activities; engaging counties, owners/operators, and other stakeholders in developing optional agricultural stewardship approaches; and/or preserving agricultural land through off-site easements or other agricultural land conservation interests. However, these impacts remain significant and unavoidable after implementation of this measure because (i) even after effects from the footprints of conservation measures are minimized through design, they would continue to require the conversion of substantial amounts of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones, (ii) conservation or preservation by means of acquiring agricultural land conservation interests, even at one-to-one ratio, may not avoid a net loss of Important Farmland and land subject to Williamson Act contracts or in Farmland Security Zones and (iii) the proposed optional agricultural stewardship approach does not focus principally on physical effects, but rather, focuses on providing, at a minimum, a neutral agricultural economic effect on affected lands in the Delta as a result of the BDCP, taking into consideration the desire of individual Delta farmers to continue working on their land, the long-term viability of regional agricultural economies, the economic health of local governments and special districts, and the Delta as an evolving place.

Mitigation Measure AG-1: Develop an Agricultural Lands Stewardship Plan (ALSP) to Maintain Agricultural Productivity and Mitigate for Loss of Important Farmland and Land Subject to Williamson Act Contracts or in Farmland Security Zones

Please see Mitigation Measure AG-1 under Impact AG-1 in the discussion of Alternative 4.

Impact AG-4: Other Effects on Agriculture as a Result of Implementing the Proposed Conservation Measures 2–11, 13, 15, 16, 20, and 21

Effects on agriculture as a result of changes in groundwater elevation

Implementation of these conservation measures could indirectly affect agriculture by causing changes to the elevation of groundwater in the study area, as described under Chapter 7, *Groundwater*, Impact GW-6. Increased frequency of inundation associated with proposed tidal habitat, channel margin habitat, and seasonally inundated floodplain restoration would result in increased groundwater recharge, which could result in groundwater level rises and soil saturation on adjacent lands. Areas in which crop roots are exposed to a surplus of water could result in root rot, compromising the viability of certain crops, particularly those with deep roots (Refer to Section 14.1, *Environmental Setting/Affected Environment,* for root depths by crop type). Conversely, in areas where the project results in a larger vertical distance between the water table and crop roots, plants with shallow roots may not be able to extract enough water to maintain optimal growth without modifying irrigation or drainage infrastructure. While the geographic incidence and potential severity of these effects are unknown and would depend on existing localized groundwater

levels in the vicinity of sites chosen for restoration, they would be anticipated to create an adverse effect on agricultural resources if they were to substantially restrict agricultural uses.

Effects on agriculture as a result of changes in salinity

As discussed in Chapter 8, *Water Quality*, under Impact WQ-12, implementation of these conservation measures would not introduce new sources of electrical conductivity into the study area. Therefore, as they relate to salinity of irrigation water, these measures would not be anticipated to restrict agricultural uses within the study area.

Implementation of CM4 would increase the exchange of tidal water in restoration areas; however, consideration of this measure and its potential effects on electrical conductivity in the Delta has been incorporated in the assessment of CM1 under Impact AG-2.

Effects on agriculture as a result of disruptions to agricultural infrastructure

Implementation of *CM21 Nonproject Diversions*, along with construction activities and the permanent footprints associated with land acquired for habitat restoration, could directly or indirectly disrupt existing agricultural irrigation and drainage facilities throughout the study area. In particular, CM21 would fund programs to modify, remove, or consolidate diversions that serve as supplies of irrigation water within the study area. Where irrigation or drainage infrastructure is disconnected from the farmland it serves, agricultural uses could be substantially restricted. However, the location and severity of this effect would depend on site-specific conditions.

Effects on agriculture as a result of changes in microclimates and localized growing conditions

Restoration areas implemented under Alternative 4 would result in substantial changes in land use patterns in parts of the study area, which could indirectly affect some farmlands by causing changes to the microclimates surrounding sensitive agricultural crops. For example, large areas of tidal habitat could create a localized climate that would be less supportive of yields of certain crops adjacent to the areas. However, this effect is speculative and its potential severity would depend on site-specific conditions.

Effects on agriculture as a result of increased frequency of inundation events

Modified activities in the Yolo Bypass undertaken as part of Alternative 4 would indirectly affect agricultural practices by increasing the frequency, duration, and magnitude of floodplain inundation. *CM2 Yolo Bypass Fisheries Enhancement*, which this EIR/EIS addresses at a program level, will require the preparation and implementation of a YBFEP. The YBFEP would propose a number of actions, which would include modifications to Fremont Weir to manage timing, frequency, and duration of inundation of the Yolo Bypass. Modifications of Fremont Weir would include installing and operating a gated channel to inundate the floodplain to support covered fish species, primarily from mid-November through April. Opening these gates would result in inundation of the Yolo Bypass. Target inundation footprints would be up to 10,000 acres between November 10 and November 30. Between December 1 and February 28, operations would target up to 17,000 acres of inundation. Between March 1 and May 15, the target inundation area would return to a range of 7,000–10,000 acres. These operations are expected to be typical of, but not necessarily identical to, actual operational guidelines that would be developed in the course of subsequent project-specific design, planning, and environmental documentation.

Although this area currently experiences periodic inundation within the same footprint, if inundation continues later in the spring, this could result in a delay in ground preparation and planting operations for crops within the Yolo Bypass. Table 14-11 shows typical crop production practices in the Yolo Bypass. After the flow ceases, it may take as many as four weeks for the waters to recede and for the land to dry sufficiently to start farming. While there is disagreement surrounding the time periods necessary to prepare land and for the Bypass to dry out, for this analysis, a four-week period is used as the amount of time required between the end of water inundation and the point when ground preparation activities can begin. Based on the agricultural practices outlined in Table 14-11, the anticipated dates at which inundation must end to allow planting to be completed are also presented.

As shown in Table 14-11, if the duration of inundation events extends beyond March 1, March 15, April 1, and April 15, the growing season for tomato; safflower; and corn and rice; and Sudan grass could be delayed. This delay may reduce the growing season to the point of changing crop yield and/or quality, or result in fallowing of agricultural land or the growing of less profitable crops on impacted farmlands. Depending on the frequency and duration of inundation events, crop selection may be constrained. However, short of substantially restricting agricultural use of land, these effects would be considered economic, rather than environmental, in nature. Conservation easements or fee-title acquisition would be required for all inundation on agricultural land.

The *Yolo Bypass Flood Date and Flow Volume Agricultural Impact Analysis*, a report created for Yolo County, assesses the agricultural and economic impacts from BDCP-proposed flooding scenarios in the Yolo Bypass, including CM2. The CM2 scenario would only impose water flows through an operable gate at Fremont Weir for an additional 30 days in years when there is natural flooding (see Chapter 3, *Description of Alternatives*, Section 3.6.2, for further description of CM2). Minimal loss of irrigated acres is expected in the CM2 scenario, but losses are anticipated to occur in years when there is natural flooding. The largest losses would be anticipated during years when natural overtopping occurs late into the season. CM2 proposes an additional 30 days of flooding, through the middle of April, which is expected to result in crop yield losses and an increase in fallow acres, as well as agricultural revenue losses.

As farmers delay planting, crop yields decline, which leads to lower revenues and land fallowing. The report identified 9 major crop groups in areas affected by flooding in the Bypass: corn, irrigated pasture, non-irrigated pasture, rice, wild rice, safflower, sunflower, processing tomatoes, and vines (melons). Further discussion of socioeconomic effects of CM2 on agriculture can be found in Chapter 16, *Socioeconomics*, Impact ECON-16 and Impact ECON-18.

Table 14-11. Typical Crop Production Practices in Yolo Bypass

Crop	Ground Preparation	Planting	Harvest	Other	Plant By Date	End Inundation Date[c]
Corn[a]	March–April	April–May	Sept–Oct		June 1	April 1
Pasture[a]				Winter range feeding: Nov-Apr Summer Feeding: May–Oct Breeding: Dec-Feb		
Rice (wild/white) [a]	April–May	April–May	Sept–Nov		June 1	April 1
Safflower[a]	Aug–Oct (during year preceding planting)	Mar–May	Jul–Sept		May 15	March 15
Sudan Grass[b]	April–May	May–July	July–August		June 15	April 15
Tomato[a]	Mar–April	April–May	June–Sept		May 1	March 1

Sources: Crop production practices, all crops except Sudan grass: California Department of Fish and Game and Yolo Basin Foundation 2008.; Sudan grass production practices: U.C. Cooperative Extension 2009.

[a] These data are based on the 2004 Crop Year, which was considered relatively normal year with regard to flooding in the Bypass. There was some mid-winter inundation which receded and did not dramatically impact production.

[b] Data concerning Sudan grass is based on growing cultivation and cycles in South San Joaquin County. Growing conditions and crop cycles in the Yolo Bypass vary from these patterns. Different practices may result.

[c] Table assumes 4 weeks for Bypass to dry out and 4 weeks for ground preparation.

The new inundation schedule could substantially prevent agricultural use of these lands. The amount of agricultural land potentially affected by these and related activities (up to 17,000 acres) suggests the potential for an adverse effect on agricultural resources; however, the extent of these effects is unknown at this point and will be analyzed in forthcoming documents for the YBFEP, which would be completed under CM2. Mitigation Measure AG-1 is available to mitigate this effect.

Additionally, some benefits could result from an increased presence of water. An increase in potential groundwater recharge could raise the groundwater table to within the root zone of some crops (Section 14.1.1.6, *General Crop Production Practices and Characteristics*, discusses of the relationship between crop viability and groundwater table levels). This could also be a beneficial effect in parts of Yolo and Solano Counties that utilize groundwater from the aquifers underneath the Yolo Bypass.

Changes to agricultural practices and protection of agricultural land as a result of implementing the proposed Conservation Measures 2–11, 13, 15, 16, 20, and 21

Under the cultivated lands natural community goal and objectives of BDCP *CM3 Natural Communities Protection and Restoration*, the BDCP proponents would acquire and protect approximately 48,100 acres of nonrice cultivated lands and manage them for specific habitat values corollary to agricultural use for species including Swainson's hawk, giant garter snake, greater sandhill crane, white-tailed kite, and tricolored blackbird. Additionally, 3,500 acres of rice lands or

similarly functioning habitat would be maintained annually for giant garter snake in Conservation Zones 4 and/or 5. Because crop selection is dynamic and predominantly influenced by economic forces, the acquisition approach for these goals would allow for a combination of permanent easements, agreements with other agencies, fee-title acquisition, and other methods, to ensure that habitat target acreages are consistently satisfied across the Plan Area. Management activities would maintain existing small patches of riparian woodland and scrub, wetlands, ponds, hedgerows, tree rows, and isolated native or nonnative trees. While these conservation measures would protect agricultural uses on the majority of these lands, specific management actions implemented under *CM11 Natural Communities Enhancement and Management* could reduce crop yields, restrict crop choices, and convert small portions of cultivated lands to nonagricultural uses. Where feasible, tilling would be deferred or some lands left unharvested to increase the amount of forage available to sandhill cranes. Shallow flooding of some lands during fall and winter months may also be adopted to support cranes and other species. While implementation of CM3 would protect agricultural uses on over 48,000 acres of land, management actions under CM11 could directly convert small portions of this land to nonagricultural uses such as grassland edges or woodlots. Management techniques could also result in crop yield reductions following the minimization or cessation of pesticide use on acquired lands, as many agricultural operators are currently able to apply pesticides in a manner that causes such substances to "drift" onto neighboring properties. However, the agricultural use of this land would be preserved and any further restrictions on the continued agricultural use of the land are unlikely to be substantial.

Other conservation measures related to habitat restoration and enhancement could also indirectly affect agricultural production or management practices. For example, restored habitat areas adjacent to agricultural lands could increase crop predation by birds and could introduce invasive species onto agricultural lands, reducing yields and associated production value. A related concern is the introduction of a covered species into a new area, which may require adjustments to agricultural management practices or the initiation of Safe Harbor Agreements. Finally, other "important related actions" identified by the BDCP could further limit pesticide and herbicide discharge in the study area, possibly leading to other reductions in crop yield or increases in operating costs. These effects would be considered primarily economic in nature.

Beneficial effects could result from efforts to control nonnative aquatic vegetation under *CM13 Invasive Aquatic Vegetation Control* and limit the spread of invasive species under *CM20 Recreational Users Invasive Species Program*. If successful, these measures could limit the spread of weeds and pests, while keeping irrigation infrastructure free from aquatic vegetation.

While these effects would convert small areas of land to nonagricultural use and could change agricultural practices or yields across a large area, conservation measures would also support the continued use of land for agricultural purposes, even though some neighboring operators might no longer be able to conduct operations in a way that causes chemicals to drift onto adjacent properties. Overall, these effects would not be anticipated to result in the substantial restriction of agricultural uses.

NEPA Effects: Considered together, implementation of Conservation Measures 2–11, 13, 15, 16, 20, and 21 under this alternative could create indirect but adverse effects on agriculture by converting substantial amounts of Important Farmland to other uses through changes to groundwater elevation and seepage, disruption of drainage and irrigation facilities, or increased inundation. Further evaluation of these effects would depend on additional information relating to the location of these

activities and other detailed information. However, implementation of Mitigation Measures AG-1 and GW-5 will reduce the severity of these adverse effects.

***CEQA Conclusion*:** Implementation of Conservation Measures 2–11, 13, 15, 16, 20, and 21 under this alternative could create a significant impact on agriculture by converting substantial amounts of Important Farmland to other uses through changes to groundwater elevation and seepage, disruption of drainage and irrigation facilities, or increased inundation. Further evaluation of these effects would depend on additional information relating to the location of these activities and other detailed information. Implementation of Mitigation Measures AG-1 and GW-5 will reduce the severity of these impacts by implementing activities such as siting features to encourage continued agricultural production; monitoring seepage effects; relocating or replacing agricultural infrastructure in support of continued agricultural activities; engaging counties, owners/operators, and other stakeholders in developing optional agricultural stewardship approaches; and/or preserving agricultural land through off-site easements or other agricultural land conservation interests. However, these impacts remain significant and unavoidable after implementation of these measures because (i) seepage minimization may be infeasible in some instances, (ii) conservation or preservation by means of acquiring agricultural land conservation interests, even at one-to-one ratio, may not avoid a net loss of Important Farmland and (iii) the proposed optional agricultural stewardship approach does not focus principally on physical effects, but rather, focuses on supporting the Delta as an evolving place by encouraging existing owners and operators to continue working on the land while maintaining the long-term viability of regional agricultural economies and the economic health of local governments and special districts in the Delta.

Mitigation Measure AG-1: Develop an Agricultural Lands Stewardship Plan (ALSP) to Maintain Agricultural Productivity and Mitigate for Loss of Important Farmland and Land Subject to Williamson Act Contracts or in Farmland Security Zones

Please see Mitigation Measure AG-1 under Impact AG-1 in the discussion of Alternative 4.

Mitigation Measure GW-5: Agricultural Lands Seepage Minimization

Please see Mitigation Measure GW-5 under Impact GW-5 in the discussion of Alternative 1A in Chapter 7, *Groundwater*.