Intergovernmental Compact

This Intergovernmental Compact is made as of the 3rd day of November, 2006, by and between the Navajo Nation and the Hopi Tribe.

RECITALS:

The Navajo Nation and the Hopi Tribe are federally recognized, sovereign nations, empowered to control and regulate their affairs in the manner set forth in this Compact.

The Navajo and Hopi peoples are and shall remain neighbors, and desire to live in harmony and with mutual respect for each other for all future generations. One important aspect of such mutual respect is consideration for the religious beliefs and practices of the other.

Access to and use of certain places and natural resources are essential to the traditional religious practices of the Navajo and Hopi peoples. Some such places and resources are on land controlled by the other party, and some of those places are on land that has been involved in litigation since 1974, pending in the United States District Court for the District of Arizona (No. 74-842-PCT-EHC) (the "Litigation").

The parties desire to resolve both the disputes involved in the Litigation and others, and further to establish and protect the rights of their members to engage in traditional religious practices where those practices involve access to and use of the other party's lands. The parties also wish to provide for the maintenance and protection of religious sites on their lands for the use and benefit of their members now and in the future. To that end, the parties have agreed to certain grants, covenants, undertakings, and waivers as set forth herein.

AGREEMENTS:

Now, therefore, in consideration of the grants, covenants, undertakings, and waivers set forth below, the parties agree and are bound as follows:

Article 1: Definitions

1.1 "The parties" means the Navajo Nation and the Hopi Tribe, while "party" means either the Navajo Nation or the Hopi Tribe individually.

1.2 "The Navajo Lands" means all lands held in trust by the United States for the benefit of the Navajo Nation or the Navajo people as a whole, including such lands partitioned and awarded in the Litigation pursuant to the District Court's orders and judgments reported at 816 F. Supp. 1387 (1992).

1.3 "The Hopi Lands" means all lands in Arizona held in trust by the United States for the benefit of the Hopi Tribe or the Hopi people as a whole, including such lands partitioned and awarded in the Litigation pursuant to the District Court's orders and judgments reported at 816 F. Supp. 1387 (1992).

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1.4 "Hopi Religious Practices" means: (a) the gathering or collection of certain minerals and plant materials, and the gathering of young Golden Eagles and hawks, for religious purposes; (b) the visitation of certain sites, including places where hawks and eagles nest, shrines, and sacred springs, for religious purposes; (c) rituals conducted at such sites; (d) pilgrimages to and from and between shrines, including those on the Hopi Salt Trail from the Hopi villages to the Grand Canyon; and (e) other traditional Hopi ceremonies or rituals.

1.5 "Navajo Religious Practices" means: (a) conducting healing ceremonies, blessing ceremonies, and other traditional Navajo ceremonies or rituals at various places; (b) constructing shelters and other structures as a part of such ceremonies and rituals; (c) gathering or collecting various minerals, plant materials and animal parts for religious purposes; (d) visiting sacred sites, including but not limited to sacred springs, for placing offerings, conducting blessings, and reciting prayers; and (e) travel to and from and between sacred places.

1.6 "Landowner Tribe" means the Navajo Nation with respect to the Navajo Lands and the Hopi Tribe with respect to the Hopi Lands.

1.7 "Effective Date" means the date on which the United States District Court for the District of Arizona enters the Order described in Section 7.4.

1.8 "Extended family" means persons who are related to an enrolled member of the Navajo Nation or the Hopi Tribe by blood or marriage.

Article 2: Rights of Access and Use; Easements and Other Interests

2.1 The Hopi Tribe grants to the Navajo Nation, for the use and benefit of all current and future enrolled members of the Navajo Nation and members of their extended families, a permanent, irrevocable, prepaid, non-exclusive easement and permit to come upon and to use the Hopi Lands for Navajo Religious Practices.

2.2 The Navajo Nation grants to the Hopi Tribe, for the use and benefit of all current and future enrolled members of the Hopi Tribe and members of their extended families, a permanent, irrevocable, prepaid, non-exclusive easement, profit, license, and permit to come upon and to use the Navajo Lands for Hopi Religious Practices, including, without limitation, an easement to travel along, and visit shrines associated with, the Hopi Salt Trail as defined and depicted on Exhibit A, subject, however, to the limitations set forth in Section 2.4 as to the places where certain gathering may be done.

2.3 The Hopi Tribe grants to the Navajo Nation, for the use and benefit of all current and future enrolled members of the Navajo Nation, a permanent, irrevocable, prepaid, non-exclusive easement, profit, license, and permit to come upon the Hopi Lands and to gather and remove plants, herbs, green boughs, feathers, rocks, and minerals for religious and medicinal purposes from the Hopi Lands

generally; provided, however, that such materials and things shall not be gathered for sale or other commercial purposes.

2.4 The Navajo Nation grants to the Hopi Tribe, for the use and benefit of all current and future enrolled members of the Hopi Tribe, a permanent, irrevocable, prepaid, non-exclusive easement, profit, license, and permit to come upon the Navajo Lands, and to gather and remove fledgling Golden Eagles and hawks within the areas depicted on Exhibit B, and to gather and remove minerals and plant materials for religious and medicinal purposes from the Navajo Lands generally; provided, however, that such materials and things shall not be gathered for sale or other commercial purposes. This Compact does not grant to the Hopi Tribe or its members any easement, profit, license, permit, or right to gather or remove any Golden Eagle or hawk from any part of the Navajo Lands outside the areas depicted on Exhibit B, and this Compact does not prevent, limit or restrict the Navajo Nation from enforcing any law governing trespass, hunting or interference with wildlife against any person who comes upon any part of the Navajo Lands outside the areas depicted on Exhibit B for the purpose of gathering or removing any Golden Eagle or hawk. This Compact does not waive, limit or restrict any right the Hopi Tribe or its members may have under the United States Constitution or federal law to come upon any part of the Navajo Lands outside the areas depicted on Exhibit B for the purpose of gathering or removing any Golden Eagle or hawk.

2.5 The rights of both parties described in Sections 2.1 and 2.2 shall be subject to the following conditions:

A. If any Navajo Religious Practice or Hopi Religious Practice is anticipated to involve more than 20 individuals at any one place and time, or if habitable structures are to be constructed for use in any such religious practice, or if non-habitable structures will be erected which are required to be left to degrade naturally, the member of the Navajo Nation or the Hopi Tribe responsible for such religious practice shall give advance notice to the Landowner Tribe in the manner set forth in Article 9 not later than 5 calendar days before commencement of such religious practice, stating the expected dates of commencement and completion of the ceremony or ritual, its location, the approximate number of expected attendees if the number is greater than 20, and the location and type of any structures to be constructed; and

B. The member of the Navajo Nation or the Hopi Tribe responsible for the Navajo Religious Practice or Hopi Religious Practice will dismantle any habitable structures erected in connection with such religious practice within 5 days of its completion, and, if he fails to do so, the Landowner Tribe may dismantle such structures without liability, but the Landowner Tribe shall not dismantle any structure as to which notice was given pursuant to subsection A above to the effect that the structure would be a non-habitable structure that is required to be allowed to degrade naturally, regardless of the Landowner Tribe's opinion as to whether the structure is non-habitable.

2.6 No permit shall be required to exercise any of the rights granted in Sections 2.1, 2.2, 2.3, or 2.4, and no advance notice shall be required before exercising any such rights, except as required by Section 2.5 and Article 5.

2.7 When traveling on the lands of the other party to exercise any of the rights granted in Sections 2.1, 2.2, 2.3, or 2.4, members of the Navajo Nation and the Hopi Tribe and members of their extended families are authorized to travel upon any route across any lands that a member of the Landowner Tribe could lawfully travel upon under the laws of the Landowner Tribe.

2.8 While on the land of the other party, members of the Navajo Nation and the Hopi Tribe and members of their extended families shall be subject to laws generally applicable to the Landowner Tribe's members; provided, however, that no such law shall (a) prohibit a Hopi Religious Practice or a Navajo Religious Practice altogether, or deem any such religious practice in and of itself to be a trespass or other violation of law, or (b) prevent or materially limit the exercise by any member of the other party of rights granted by this Compact.

2.9 Any person traveling to or from any place for a religious purpose may request an escort by the Landowner Tribe and, if such an escort is requested a reasonable time in advance, the law enforcement agency of the Landowner Tribe shall provide such an escort at no cost. If any member of the Navajo Nation or the Hopi Tribe or member of the extended family of such tribal member experiences difficulty obtaining access to a religious site on the land of the other party, and, if the Landowner Tribe is requested to do so, the Landowner Tribe shall take such reasonable steps as are necessary to facilitate access.

2.10 Nothing herein shall be deemed to extend rights to anyone who is not a member of the Navajo Nation or the Hopi Tribe or a member of the extended family of such member or to authorize the conduct of any practices other than Navajo Religious Practices and Hopi Religious Practices. Nothing in this Compact authorizes anyone to conduct practices that are traditionally conducted by Indian tribes other than the parties but are not traditionally conducted by members of one of the parties.

2.11 No easement, profit, license, or permit granted by this Article shall give the grantee party any civil or criminal jurisdiction or taxing authority over the land that is subject to the easement, profit, license or permit. No easement, profit, license or permit granted by this Article shall be subject to taxation by the Landowner Tribe. No easement, profit, license, or permit granted by this Article shall give the grantee party any interest in the mineral rights to any area subject to such easement, profit, license, or permit.

Article 3: Secrecy and Privacy

3.1 Each party desires to maintain the secrecy of the exact location of the sacred places of its members to the greatest extent possible. Accordingly, the parties are not required to notify each other at the present time or in the future of the location of any sacred site.

3.2 The Landowner Tribe shall respect the privacy of persons engaging in religious practices, and shall not observe or intrude upon religious activities or impede, search, inspect, or interfere with any person traveling to or from such activities. If a participant requests an escort pursuant to Section 2.9, the escort shall respect the privacy of the participants except as necessary to provide the requested escort services.

3.3 The parties shall make reasonable efforts to advise their members of the terms of this Compact, to encourage their members to respect the privacy of the religious activities of others on their land, and to urge their members to deal courteously and respectfully with area residents when they enter upon the other party's land for religious purposes; provided, however, that the Exhibits A, B, C, and D to this Compact may not be shown to members of the parties other than elected leaders and those employees of the party having responsibility for performance and/or enforcement of this Compact, or to any other person.

Article 4: Protection of Religious Sites

4.1 Except as the parties may otherwise agree in writing with respect to a particular site, the Navajo Nation shall prohibit any new man-made improvement, structure, installation, or apparatus, whether placed on, under, or above the ground, including the temporary or permanent placement of moveable structures capable of human habitation, to be placed or constructed within any of the areas listed in Exhibit C. The reference numbers used in Exhibit C are for reference purposes only, and no significance should be attributed to the choice of numbers, the sequence of the numbers, or any gaps in the numbers.

4.2 The Navajo Nation grants to the Hopi Tribe a permanent, irrevocable, non-exclusive, prepaid conservation easement and servitude consistent with the terms and provisions of Section 4.1 to the areas listed on Exhibit C.

4.3 Whenever the Navajo Nation receives an application or request for construction on the Navajo Lands, and where the application or request, if approved, would result in any activity specified in Section 4.1 within 800 meters of any area listed on Exhibit C, the Navajo Nation shall give notice in writing and provide a copy of the application or request to the Hopi Tribe before approving or authorizing the proposed activity.

4.4 Except as the parties may otherwise agree in writing with respect to a particular site, the Hopi Tribe shall prohibit any new man-made improvement, structure, installation, or apparatus, whether placed on, under, or above the ground, including the temporary or permanent placement of moveable structures capable of human habitation, to be placed or constructed within 800 meters of any active Golden Eagle nest on the Hopi Lands; provided, however, that this prohibition shall not apply to any land located within 800 meters of any Hopi village existing as of the time of the proposed construction.

4.5 The Hopi Tribe grants to the Navajo Nation a permanent, irrevocable, non-exclusive, prepaid conservation easement and servitude consistent with the terms and provisions of Section 4.4 to the areas described in Section 4.4.

4.6 Whenever the Hopi Tribe receives an application or request for construction on the Hopi Lands, and where the application or request, if approved, would result in any activity specified in Section 4.4 within 1600 meters of any active Golden Eagle nest on the Hopi Lands, the Hopi Tribe shall give notice in writing and provide a copy of the application or request to the Navajo Nation before approving or authorizing the proposed activity; provided, however, that this Section shall not apply to any construction on land located within 800 meters of any Hopi village existing as of the time of the proposed construction.

4.7 Except as may be otherwise agreed to in writing by the parties, the restrictions on placement and construction described in Sections 4.1 and 4.4 shall not limit or affect the right of any person to enter or use any such area for any purpose other than such placement and construction including, without limitation, entry and use for religious observances, livestock grazing, and use and maintenance of existing roads, fences, corrals, fields, wells, springs, and livestock watering tanks.

4.8 The Landowner Tribe shall make reasonable efforts to prevent any person from violating the provisions of Section 4.1 or Section 4.4. If any person nevertheless violates the provisions of Sections 4.1 or 4.4, the Landowner Tribe shall cause the prohibited placement or construction to be removed within 90 days of the date on which it receives notice of the violation.

4.9 Where the Landowner Tribe has actual notice that damage or destruction is likely to occur, the Landowner Tribe shall make reasonable efforts to prevent any individual from damaging or destroying any Golden Eagle nest or cultural artifact within any of the areas listed in Exhibit C or Section 4.4, or any shrine known by the Landowner Tribe to be sacred to members of the other Party. If such damage or destruction nevertheless occurs, the Landowner Tribe shall investigate and prosecute the perpetrators consistent with the laws of the Landowner Tribe.

4.10 If the Landowner Tribe desires to undertake any substantial new improvement or development of any spring identified in Exhibit D, it shall first consult with the other party and, insofar as practicable, carry out such improvement or development in such a fashion that access to the spring for religious purposes will be maintained and that a portion of the flow of the spring will remain in its natural condition. Nothing in this Compact prohibits, regulates or affects maintenance or repair of improvements installed at any spring as of the Effective Date, nor does anything in this Compact require removal or alteration of any improvement installed at any spring as of the Effective Date.

4.11 Additional religious sites may be designated as being subject to the provisions of this Article 4 only by further written agreement of the parties.

4.12 No easement or servitude granted by this Article shall give the grantee party any civil or criminal jurisdiction or taxing authority over the land that is subject to the easement or servitude. No easement or servitude granted by this Article shall be subject to taxation by the Landowner Tribe.

Article 5: Studying and Enhancing Golden Eagle Population; Collection of Golden Eagles and Hawks by Hopis

5.1 As soon as practicable after the Effective Date, the parties shall establish a Joint Golden Eagle Advisory Board. The purpose of the Board shall be to collect data concerning the Golden Eagle population in and around the Hopi and Navajo Lands and to make recommendations to tribal authorities concerning specific measures to be taken to preserve and enhance the Golden Eagle population through habitat protection and otherwise. Each party shall appoint 2 people to serve on the Board, both of whom shall be knowledgeable in the field of wildlife biology. The Board shall consider and make appropriate recommendations regarding all environmental and other factors affecting the Golden Eagle population, including measures to improve productivity, protect habitat suitable for nesting, prevent disturbances during nesting season, enhance the prey base, prevent accidental deaths and otherwise decrease infant and juvenile mortality and similar matters. The parties shall submit the Board's recommendations to their respective governmental authorities responsible for wildlife management, land-use planning and environmental protection with directions that such recommendations should be taken into consideration in decision-making to the extent each party shall deem appropriate in dealing with its sovereign lands, but no recommendation of the Board shall be binding on the parties.

5.2 The parties hereby jointly request the United States Fish and Wildlife Service or its successor agency to conduct a study of the Golden Eagle population within the Navajo Lands and the Hopi Lands ("Study"). The Study shall be conducted according to the study design set out in Exhibit E, subject to the Service's determination as to the best available science to apply and subject to available funding, with the objective of providing a scientific basis for the United States Fish and Wildlife Service or its successor agency to issue permits conforming to the requirements of Section 5.5.

5.3 During the first four years of the Study ("Initial Phase"), in each year when the United States Fish and Wildlife Service or a successor agency issues a permit for the collection of Golden Eagles by Hopi tribal members in northeastern Arizona, the permit application shall not seek the take of more than 18 Golden Eagles from within the areas depicted on Exhibit B. During the Initial Phase, the Navajo Nation shall not require the Hopi Tribe or its members to apply for or obtain a permit from the Navajo Nation to take Golden Eagles from the areas depicted on Exhibit B in each year when the United States Fish and Wildlife Service, or a successor agency, issues a permit that authorizes Hopi tribal members to take not more than 18 Golden Eagles from within the areas depicted on Exhibit B. This Section does not constrain the United States Fish and Wildlife Service or successor agency from specifying in any permit the number of Golden Eagles

that may be taken from any part of northeastern Arizona other than the areas depicted on Exhibit B, nor does it otherwise constrain the Service or successor agency in the performance of its permitting function.

5.4 During the Initial Phase of the Study, in any year when the Hopi Tribe or its members file a timely application with the United States Fish and Wildlife Service or a successor agency for a permit to take no more than 18 Golden Eagles from the areas depicted on Exhibit B, in the event the United States Fish and Wildlife Service or a successor agency fails to issue a permit before the gathering season commences conforming to the requirements of Section 5.3, Hopi tribal members shall take from the areas depicted on Exhibit B no more than 18 Golden Eagles, and the Navajo Nation shall issue permits to the Hopi Tribe or its members authorizing the taking of 18 Golden Eagles from the areas depicted on Exhibit B. For purposes of this Section, a timely decision by the United States Fish and Wildlife Service that no eagles may be taken, or the issuance of a permit allowing an unlimited number of eagles to be taken, does not constitute a failure to issue a permit or a failure to specify the number of eagles which may be taken. Neither this Section, nor the Secretary's signature on this Compact, shall be interpreted as an authorization by the Secretary to take Golden Eagles without a valid permit issued by the United States Fish and Wildlife Service pursuant to the Bald and Golden Eagle Protection Act.

5.5 The parties hereby jointly request that, after the Initial Phase of the Study, any permit issued by the United States Fish and Wildlife Service or a successor agency for the Hopi Tribe or its members to take Golden Eagles from northeastern Arizona shall separately specify (a) the number of Golden Eagles that may be taken from northeastern Arizona, and (b) the number of Golden Eagles that may be taken from that portion of northeastern Arizona depicted on Exhibit B, and hereby jointly further request that both such numbers shall be based on the results of the Study as of the time of issuance of the permit, with the objective of maintaining the stability of the Golden Eagle population on Navajo and Hopi lands as a whole.

5.6 After the Initial Phase of the Study, including the issuance of findings regarding the specific matters set out in Exhibit E, the Navajo Nation shall not require the Hopi Tribe or any individual member of the Hopi Tribe to apply for or obtain a permit from the Navajo Nation to take Golden Eagles from the areas depicted on Exhibit B if the Hopi Tribe or its member holds a valid permit issued by the United States Fish and Wildlife Service or its successor agency conforming to the requirements of Section 5.5.

5.7 After the Initial Phase of the Study, in any year when the Hopi Tribe or its members file a timely application with the United States Fish and Wildlife Service or a successor agency for a permit to take Golden Eagles from the Navajo Lands and the Hopi Lands, in the event the United States Fish and Wildlife Service or a successor agency fails to issue a permit before the gathering season commences conforming to the requirements of Section 5.5, Hopi tribal members shall take from the areas depicted on Exhibit B no more than the number of

Golden Eagles permitted to have been taken from that area pursuant to the then most recent federal permit, and the Navajo Nation shall issue permits to the Hopi Tribe or its members authorizing the taking of such numbers of Golden Eagles from the areas depicted on Exhibit B. For purposes of this Section, a timely decision by the United States Fish and Wildlife Service that no eagles may be taken, or the issuance of a permit allowing an unlimited number of eagles to be taken, does not constitute a failure to issue a permit or a failure to specify the number of eagles which may be taken. Neither this Section, nor the Secretary's signature on this Compact, shall be interpreted as an authorization by the Secretary to take Golden Eagles without a valid permit issued by the United States Fish and Wildlife Service pursuant to the Bald and Golden Eagle Protection Act.

5.8 As soon as practical after the United States Fish and Wildlife Service or its successor agency shall have issued any permit to the Hopi Tribe or its members to take Golden Eagles from northeastern Arizona, the Hopi Tribe shall provide a copy of any such permit to the Navajo Nation.

5.9 Members of the Hopi Tribe may collect no more than 12 hawks each year from within the areas described in Section 2.4 and shown on Exhibit B, without applying for or obtaining a permit from the Navajo Nation.

5.10 Not later than September 30 of each year, the Hopi Tribe shall report to the Navajo Nation regarding the number of Golden Eagles and hawks taken by Hopis from the Navajo Lands, including the general location where taken and the condition of each Golden Eagle and hawk when taken.

5.11 No party shall be obligated by this Article to disclose the exact location of Golden Eagle nests or other information considered confidential or sensitive. The parties agree to use their best efforts to maintain the confidentiality of any information disclosed which is considered secret or sensitive by the disclosing party.

5.12 Nothing in this Compact shall be construed as a waiver of the Hopi Tribe's or its members' claim that their right to gather Golden Eagles and hawks for religious purposes is protected by the First Amendment to the United States Constitution and is not subject to regulation or limitation by any governmental agency.

5.13 Nothing in this Compact shall be construed as a waiver of any claim by the Navajo Nation or its members against the United States Fish and Wildlife Service for failure to perform its duties pursuant to the Bald and Golden Eagle Protection Act, 16 U.S.C. § 668a or regulations thereunder.

Article 6: Star Mountain

6.1 Within 90 days after the Effective Date the Hopi Tribe shall remove the sections of fence indicated on Exhibit F, and no fence shall be constructed or reconstructed on or around Star Mountain except in the locations shown on Exhibit F.

Article 7: Claims Released and Litigation Dismissed

7.1 As of the Effective Date, without any further instrument or action by either party, each party shall be deemed to have irrevocably and absolutely waived and released: (a) each and every claim of title or beneficial title in law or in equity to any land to which title or beneficial title is held by the other party as of the Effective Date within the areas covered by the Act of June 14, 1934, 48 Stat. 960; (b) any claim, whether or not such claim is now known, against the other party for an accounting, fair value of grazing, damages, or for other relief under 25 U.S.C. § 640d-7(c); and (c) any claim, whether or not such claim is now known, against the other party for fair rental value under 25 U.S.C. § 640d-15 as to lands within the areas covered by the Act of June 14, 1934, 48 Stat. 960. Nothing in this Compact shall be deemed to be a waiver or release by either party of any present or future claim or right against the Navajo Nation, the Hopi Tribe, the United States, or any other person or entity based upon an easement or way of necessity or similar doctrine, and excepting the easements expressly described in Sections 2.1, 2.2, 2.3, 2.4, 4.2 and 4.5 of this Compact, nothing in this Compact shall be deemed to create any easement or way of necessity or interest under any similar doctrine nor shall anything in this Compact be deemed an admission by either party or by the United States of the existence of any such easement or way of necessity or interest under any similar doctrine.

7.2 The parties agree that all funds received, collected, or held by the Department of Interior and/or the Bureau of Indian Affairs as payment by third parties for easements, rights-of-way, or other interests within the area known as the "Bennett Freeze," for the period from July 8, 1966 to the Effective Date, are to be distributed in equal shares to the Navajo Nation and the Hopi Tribe.

7.3 As soon as practicable after this Compact shall have been executed by the parties, the parties shall jointly present it to the United States Secretary of the Interior for approval of the agreements and creation of the beneficial interests and use and access rights upon and to certain trust lands set forth in this Compact. Neither this Compact nor the Secretary's approval of it shall be construed to mean that the Secretary or the United States has authorized either party or its members to violate any federal or state law, including without limitation the Bald and Golden Eagle Protection Act, or to violate or abrogate the legally protected property rights of any individual. The parties hereby agree and represent to the Secretary of the Interior that an appraisal of the fair market value of the property rights conveyed under this Compact is not necessary or appropriate in light of the special relationship between the parties and the special circumstances recited in this Compact, that nothing in this Compact describes any "major federal action" for any regulatory purpose, and that no further investigations or approvals are necessary or appropriate. Approval of this Compact by the Secretary does not create any new claim against the United States for monetary damages.

7.4 As soon as practicable after this Compact shall have been fully executed by the parties and the Secretary of the Interior or his or her duly authorized

representative, the parties shall stipulate to and obtain an order and judgment in the Litigation (a) confirming and incorporating the orders and judgments entered by the District Court in 1992 following the partition phase of the trial (all as reported at 816 F. Supp. 1387 (1992)); (b) adopting the terms and provisions of this Compact as an order and judgment of the Court; (c) declaring that the Court has jurisdiction under the 1934 Act (Pub. L. No. 73-352, 48 Stat. 960) and the 1974 Act (25 U.S.C. § 640d *et seq.)* over the parties and the subject matter of this Compact; (d) quieting title to the property interests established herein; (e) continuing the Court's jurisdiction over the parties and the subject matter for the purpose of proceedings to vacate, modify, or enforce any Decision and Award made under Section 8.4, or original enforcement proceedings under Sections 8.7 and 8.8; (f) dismissing any and all claims asserted against each other in the Litigation, with prejudice, with each party to bear its own attorneys' fees and costs; (g) declaring that no lands are any longer "in litigation" for purposes of 25 U.S.C. § 640d-9(f), and that the restrictions on development contained in that statute, commonly known as the "Bennett Freeze," are of no further force or effect; and (h) directing that Exhibits A, C, and D attached to this Compact shall be filed under seal.

7.5 On the Effective Date, each party shall be deemed to have consented, for purposes of 25 U.S.C. §640d-9(f), to any and all future "development" as that term is used in 25 U.S.C. § 640d-9(f) within the lands of the other party covered by that statute, including but not limited to development planned as of that date, and upon request of the other party shall execute any and all consents that might be requested as to any such development; provided, however, that neither party shall be deemed under this Section to have consented or waived any objection to any such development under any provision of law other than 25 U.S.C. § 640d-9(f); and provided further that this Section shall not apply to any development which is prohibited under Article 4 of this Compact.

7.6 After the Effective Date, the Hopi Tribe agrees to endorse and publicly support any bill the Navajo Nation may submit to Congress insofar as it requests the repeal of 25 U.S.C. § 640d-9(f); provided, however, that the Hopi Tribe does not agree to endorse or support any other provision of any legislation which may be proposed or requested.

Article 8: Enforcement and Dispute Resolution

8.1 As soon as practicable after the Effective Date, there shall be established by the parties a Joint Commission to administer and facilitate this Compact. Each party shall appoint 2 persons to serve on the Joint Commission, at least one of whom should be familiar with the religious practices of members of that party. The fifth member of the Joint Commission shall be a neutral person, skilled in the resolution of disputes, who has previously served as a judge of a tribal, state, or federal court and is not a member of either party. The neutral fifth member of the Joint Commission shall be appointed either by agreement of the parties or, failing such agreement, by the Chief Judge of the United States Court of Appeals for the Ninth Circuit or the Chief Judge's designee. Any compensation to the neutral

fifth member shall be paid equally by the parties. The neutral fifth member shall serve an indefinite term, unless and until he or she shall resign or the parties shall agree to appoint a replacement.

8.2 The parties shall attempt in good faith to negotiate and resolve any dispute arising under this Compact, beginning at the lowest practical operational level and escalating to the highest officials of each party if necessary, before initiating any proceedings under Section 8.3. This Section shall not, however, require either party to forbear for any particular period of time before initiating such proceedings.

8.3 Any dispute arising under this Compact that is not resolved by negotiation may be submitted to the Joint Commission for arbitration, which shall be commenced by mailing a written demand for arbitration setting forth in detail the dispute and the relief requested to each member of the Joint Commission and the other party, by registered or certified mail, postage prepaid. Arbitration before the Joint Commission shall be the only procedure and the only forum for resolution of such disputes unless and until the Joint Commission shall fail to make a decision within the period specified in Section 8.4.

8.4 The Joint Commission shall establish its own rules and procedures not inconsistent with the terms of this Compact for the resolution of any dispute which is the subject of a demand for arbitration, hearing such evidence and argument as it may, in its discretion, choose to accept. When any dispute is so submitted, the Joint Commission shall decide and resolve the dispute by issuing a written Decision and Award signed by a majority of the 5 members within 180 days after the date on which the demand for arbitration shall have been mailed to the last of the members of the Joint Commission and the other party.

8.5 The Joint Commission in its Decision and Award shall have the authority to issue restraining orders, injunctions, declaratory judgments, and orders of specific performance enforcing the terms of this Compact, but shall not have the authority to award damages, attorneys' fees, or the costs of arbitration.

8.6 A Decision and Award of the Joint Commission shall be subject to judicial review and enforcement only in the United States District Court for the District of Arizona, and may be vacated or modified only on the grounds permitted under the Federal Arbitration Act (9 U.S.C § 1 *et seq.)* as it exists on the Effective Date, except that no Decision and Award shall be vacated or modified on the ground of partiality of either or both of the two members appointed by each of the parties.

8.7 In the event a neutral fifth member shall not be serving on the Joint Commission at the time the demand for arbitration is mailed to the party-appointed members and such neutral fifth member shall not have been appointed within 30 days thereafter, either party may then commence litigation in the United States District Court for the District of Arizona for appointment of a neutral fifth member to the Joint Commission.

8.8 In the event the Joint Commission shall fail to issue a Decision and Award within the period set forth in Section 8.4, either party may then commence litigation in the United States District Court for the District of Arizona for any relief that the Joint Commission could have awarded.

8.9 Each party hereby consents to arbitration and/or suit in the circumstances and for the relief described in Sections 8.3 through 8.8, and hereby waives its sovereign immunity for the limited purpose of such arbitration and/or suit, but the limited waiver of sovereign immunity expressed herein does not extend to any claim for any other remedy.

8.10 The Joint Commission shall meet at least once annually or, at the request of either party, more frequently, to discuss, counsel, interpret, or mediate the provisions of this Compact and seek to establish informal agreements between the parties regarding the implementation of the provisions of this Compact. When meeting for the purposes described in this Section, the neutral fifth member of the Joint Commission need not attend unless one of the parties so requests, and, if one of the parties does so request, the meeting shall be deferred until the neutral fifth member is in attendance. No action of the Joint Commission shall be binding on the parties other than a Decision and Award issued pursuant to Sections 8.3 through 8.5.

8.11 Nothing in this Compact prevents either party or its members from exercising any rights under, or invoking the authority of the United States Secretary of the Interior to implement and enforce, the provisions of 25 U.S.C. § 640d-20.

8.12 Except as provided herein, the parties shall not be liable for any acts taken by any of their individual members not acting in an official capacity.

Article 9: Notices

9.1 Any notice required or permitted under this Compact shall be in writing and shall be placed in the United States mail, first-class postage prepaid, addressed as specified below or to such other addresses as any party may hereafter specify. Any notice so provided shall be deemed effective as of the date it is mailed.

9.2 Notices to the parties shall be addressed as follows:

A. To the Navajo Nation:

Navajo Nation
Attention: Director of Historic Preservation Department
P.O. Box 4950
Window Rock, Arizona 86515

and a copy to:

Navajo Nation
Attention: Attorney General
P.O. Drawer 2010
Window Rock, Arizona 86515

B. To the Hopi Tribe:

The Hopi Tribe
Attention: Director of Cultural Preservation
P.O. Box 123
Kykotsmovi, Arizona 86039

and a copy to:

The Hopi Tribe
Attention: General Counsel
P.O. Box 123
Kykotsmovi, Arizona 86039

9.3 Either party may, by written notice to the other, change the designated persons to whom notice should be addressed and/or the address to which such notice shall be sent.

9.4 Nothing contained in this Compact shall prohibit informal communications in addition to the formal written notices otherwise required by this Compact. In order to expedite informal attempts to resolve disputes each party is encouraged to, and at its election may, provide the other party from time to time with the names, telephone numbers, and other information necessary to transmit information electronically as to any officials or employees of the party designated to attempt to resolve issues informally.

Article 10: Modification

10.1 This Compact may not be changed, waived, discharged, or terminated orally, but only by an instrument in a writing signed by the parties.

Article 11: Delegation and Assignment

11.1 Each party may, in its own discretion, designate one or more of its officials, employees, agencies, committees, or other political subdivisions to perform any obligation of the party under this Compact and delegate authority to such person or entity to perform such obligations. Such designation and delegation shall not, however, relieve either party of its own obligations to the other party under this Compact. No party may assign any right or interest under this Compact and, except as provided in this Section, no party may delegate any duty or obligation under this Compact, and any attempted or purported assignment or delegation in violation of this Section shall be void.

Article 12: Binding Effect

12.1 Each party has warranted and represented to the other party that the officer whose signature appears on this Compact has been duly and fully authorized, empowered and instructed to execute this Compact on behalf of the party, with the intent that each party be immediately and irrevocably bound by, and entitled to the benefits of, this Compact.

12.2 Nothing in this Compact shall affect, modify, or supersede any Accommodation Agreement or other agreement between the Hopi Tribe and any member of the Navajo Nation.

12.3 Nothing in this Compact shall affect, modify, or supersede: (a) any requirement imposed by Section 106 of the National Historic Preservation Act, 16 U.S.C. § 470f, or the regulations implementing that Section, 36 C.F.R. Part 800, regarding the comment and consultation process concerning identification of historic properties, assessment of potential adverse effects and avoidance, and minimization and/or mitigation of any adverse effects on historic properties on the Hopi Lands or the Navajo Lands or elsewhere; or (b) the rights or obligations of either party under the Native American Graves Protection and Repatriation Act, 25 U.S.C. §3001 *et seq.*

12.4 Nothing in this Compact shall be construed as a waiver of (a) any claim made by the Navajo Nation in the pending litigation known as *Navajo Nation v. United States* (No. 508-88L in the United States Court of Federal Claims), (b) any claim made by the Navajo Nation in the pending litigation known as *Navajo Nation v. United States* (No. 93-763L in the United States Court of Federal Claims), or (c) any claim made by the Hopi Tribe in the pending litigation known as Hopi Tribe v. United States (No. 00-217L in the United States Court of Federal Claims). Neither this Compact nor the approval of this Compact by the United States Secretary of the Interior may be used in the litigation identified in subpart (a) above as proof that the Navajo Nation had title to the so-called "Bennett Freeze" area as of the time of imposition of the "Bennett Freeze," but the Navajo Nation does not waive its right to introduce any other evidence as to such issues.

12.5 The rights and interests granted in this Compact are effective on the Effective Date and do not require execution of any other instrument or recordation of this Compact or any other instrument.

12.6 All current and future enrolled members of the Navajo Nation and the Hopi Tribe are third-party beneficiaries of this Compact, but no such member shall have the right as an individual to institute or participate in any legal proceeding involving this Compact, including any arbitration or lawsuit authorized by Article 8. This Section shall not be interpreted to imply that this Compact authorizes any form of legal proceeding other than those specifically provided for herein.

Article 13: Applicable Law

13.1 Unless otherwise expressly provided herein, this Compact shall be interpreted according to Arizona law, except that the property rights and interests described in this Compact are to be interpreted in accordance with the Restatement (Third) of Property as it exists on the Effective Date.

Article 14: Severability of Provisions

14.1 If any provision of this Compact is held to be void or unenforceable, all other provisions shall nonetheless continue in full force and effect.

Article 15: Entire Agreement

15.1 This Compact constitutes the entire understanding and agreement between the parties with respect to the subject matters of this Compact, and there are no agreements, undertakings, restrictions, representations or warranties as between the parties other than those set forth in this Compact.

IN WITNESS WHEREOF, the parties have caused this Compact to be executed as of the day and year first above written.

NAVAJO NATION

By: _____
Joe Shirley, Jr.
President

APPROVED:

By: _____
Dirk Kempthorne
United States Secretary of the Interior

THE HOPI TRIBE

By _____
Todd Honyaoma, Sr.
Vice-Chairman

Exhibit A

Exhibit A is an oversized map showing the location of the Hopi Salt Trail, as mentioned in Section 2.2 of this Intergovernmental Compact.

Pursuant to Section 3.3 of this Intergovernmental Compact, Exhibit A will remain confidential, and may not be shown to "members of the [the Navajo Nation and the Hopi Tribe] other than elected leaders and those employees of the [the Navajo Nation and the Hopi Tribe] having responsibility for performance and/or enforcement of this Compact."

Exhibit B

Exhibit B is an oversized map showing Hopi eagle gathering areas, as mentioned in Section 2.4 of this Intergovernmental Compact.

Pursuant to Section 3.3 of this Intergovernmental Compact, Exhibit B will remain confidential, and may not be shown to "members of the [the Navajo Nation and the Hopi Tribe] other than elected leaders and those employees of the [the Navajo Nation and the Hopi Tribe] having responsibility for performance and/or enforcement of this Compact."

Exhibit C

Exhibit C, as mentioned in Section 4.1 of this Intergovernmental Compact, is a five-page list of certain existing eagle nests on Navajo Lands. Exhibit C begins with the statement, "Circular areas, each having a radius of eight hundred (800) meters and a center point at the following UTM coordinates, are subject to the restrictions set forth in Section 4.1," followed by a list of reference numbers and UTM coordinates for each reference number.

Pursuant to Section 3.3 of this Intergovernmental Compact, Exhibit C will remain confidential, and may not be shown to "members of the [the Navajo Nation and the Hopi Tribe] other than elected leaders and those employees of the [the Navajo Nation and the Hopi Tribe] having responsibility for performance and/or enforcement of this Compact."

Exhibit D

Exhibit D, as mentioned in Section 4.10 of this Intergovernmental Compact, is a two-page list of springs, some of which are on Navajo Lands and some of which are on Hopi Lands. Exhibit D begins with the statement, "The spring located at each of the following UTM coordinates is subject to the restrictions set forth in Section 4.10," followed by a list of reference numbers and UTM coordinates for each reference number.

Pursuant to Section 3.3 of this Intergovernmental Compact, Exhibit D will remain confidential, and may not be shown to "members of the [the Navajo Nation and the Hopi Tribe] other than elected leaders and those employees of the [the Navajo Nation and the Hopi Tribe] having responsibility for performance and/or enforcement of this Compact."

Exhibit E

RESEARCH PLAN

A TERRITORY OCCUPANCY MONITORING SYSTEM TO GUIDE THE HARVEST OF GOLDEN EAGLES ON HOPI AND NAVAJO LANDS

The following study design for evaluating the effects of harvest on the golden eagle population on Navajo and Hopi lands is directly tied to the management goal of maintaining a viable population of golden eagles. This plan is based on population monitoring and indicates management and research activities that should take place if the monitored population falls below threshold levels.

The Coordinated Bird Monitoring Working Group of the International Association of Fish and Wildlife Agencies (2004) recently developed a detailed report on the role of population monitoring in bird conservation. They concluded that monitoring can provide the information needed to inform conservation decisions and evaluate their effectiveness. However, for this to be the case, monitoring and evaluation programs should be science based, and there needs to be explicit agreement about the goals of management actions. The Working Group termed such a system "management-based monitoring" and explicitly noted that management in such a system is directly supported by monitoring, the results of which guide the decision-making process and provide feedback about the population's responses to management decisions. Quoting from the report (page 5), management-based monitoring involves:

> "1) specification of explicit objectives, 2) use of existing information to develop management strategies, 3) implementation of actions in accordance with these strategies, 4) assessment of the effect of actions taken, and 5) periodic adjustment of management strategies, when necessary. Monitoring plays a critical role in science-based management by providing information for management decisions ..., evaluating those decisions through a comparison of results against prior beliefs ..., and increasing understanding of the dynamics of managed systems."

For the purposes of golden-eagle management, biologists annually will monitor territory occupancy within a selected sample of about 60 territories on, or to the extent possible, in close vicinity to, Navajo and Hopi lands. The specific management goal would be to maintain the eagle population at current levels. The number of eagle territories occupied each year would be used to reflect population status. The average level observed in the first three years of monitoring would provide a baseline population level that would be used as a benchmark to assess population status in future years. If environmental conditions during the first three years of monitoring are found to be outside the range of normal conditions with respect to factors affecting breeding eagles, then the period of time for developing a baseline will be extended until the population is monitored for three years within the range of normal conditions.

It should be recognized that the scope of research is constrained by the costs and difficulties of collecting information on golden eagle demography over large areas of

roadless and rugged terrain. However, this plan represents an attempt to implement such a strategy at reasonable cost and in a logistically feasible manner. Further, both the Hopi Tribe and the Navajo Nation have expressed concern regarding public disclosure of the locations of nesting eagles. Under this plan, the territory locations would need only to be known by those biologists monitoring them; and different groups of biologists would monitor different subsets such that only an independent, supervising biologist would know where all the territories were.

The U.S. Fish & Wildlife Service seeks harvest levels that can be sustained by the eagle population. Monitoring trends in territory occupancy will provide an empirical assessment of the net effect of all demographic forces associated with the population, including harvest. Developing a baseline (standard) for territory occupancy will require an assessment of data collected during the first three years of monitoring. Thereafter, the annual surveys will be used to assess trends in occupancy and the corresponding likelihood of population sustainability, given environmental conditions and harvest levels. Based on ongoing assessment of annual occupancy levels, management actions may be adjusted and additional research may be called for.

Consistent with the principles of management-based monitoring, if occupancy were to drop by a designated amount, then new management actions would be taken. Specifically, (a) harvest levels would be reduced by an amount or rate (e.g., proportional to drop) until the occupancy level returned to baseline levels, and (b) systematic, site-by-site examinations of conditions within each vacant territory would be conducted. If the latter could not rule out a recruitment deficit (insufficient adult eagles of both sexes to fill breeding vacancies), then (c) a region-wide study of mortality factors killing free-ranging eagles would be indicated and considered as a separate study.

The first action (a) would reduce the mortality in the population due to harvest. The third action (c) might show a path of management intervention that could stabilize or improve the trend of occupancy through increased survival. For example, if electrocution or poisoning were identified as important, then management efforts would be taken to reduce mortality due to these factors. If those efforts were successful, and occupancy rates went back to baseline levels, harvest would be re-instated at previous levels. If efforts were not successful or only partially successful, then harvest levels would be adjusted based on current understanding of their importance relative to the importance of other mortality factors.

The basic plan is to develop a management-based monitoring system that will help biologists make management decisions in the face of uncertainty about the dynamics of the eagle population. The system is adaptive (it regularly updates management actions based on new information), and it is tied to the management objective. This iterative and ongoing process will provide a way of detecting any large decline in the eagle population and offer humans some insight into ways of aiding its recovery.

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RATIONALE FOR MONITORING TRENDS IN TERRITORY OCCUPANCY

Golden eagles are naturally long-lived and faithful to their breeding areas, and populations are known for their high degree of stability. On Navajo and Hopi lands, eagle pairs almost always build their nests on cliff ledges, and these, by their nature, are permanent. If one were to imagine a vast, cliffy, landscape newly discovered by eagles, then, as the population grew, pairs of adult eagles would eventually lay claim to every serviceable cliff in the region. For a breeding pair of eagles in northern Arizona, a serviceable cliff is one containing at least one ledge suitable for nest placement and where foraging habitat adequate to eagle survival and reproduction is within reasonable commuting distance (the closer the better). Eagles, like other organisms, behave so as to maximize their number of surviving young and to minimize the risk to their own survival and future fecundity. Evolutionarily speaking, the components of a serviceable breeding location must together offer a promise of lifetime reproductive success that outweighs the costs and risks of staying there to the exclusion of other areas. We would expect that eagles are good at recognizing the trade-offs and tend not to settle for substandard locations, i.e., those whose features lies below a quality threshold. We would suppose that locations most coveted by eagle pairs would be those offering updrafts for easy soaring and travel, abundant food (hares, rabbits, squirrels), defensibility (high perches with a view), and isolation from nest predators.

Territorial eagle pairs tend to exclude all other adult eagles from as far as can be seen from perches in their territories. Pairs are usually at least 3-4 miles apart. In the case of long, continuous cliffs, pairs separate themselves to the extent they can, usually by several miles or more. As with other raptors, distance between pairs often depends upon the quality of foraging habitat: high prey densities promote high densities of pairs over the long term.

Populations of eagles tend to grow within a region until all serviceable breeding locations are occupied by pairs. As additional eagles mature, they must wait until a territory vacancy arises before they can enter the breeding population. These nonbreeding adults, called floaters, buffer the breeding population against loss by filling vacancies as they occur. When the population size levels out, the overall number of floaters depends upon overall rates of reproduction and survival in the population, and it is not unreasonable to imagine an equal number of floaters and breeders. In Switzerland, competition and strife between floaters and breeders over ownership of territories may interfere with reproduction (Haller 1996). Even so, a good supply of floaters is a sign of population stability, because when they are present, every serviceable breeding location will contain a pair of adults.[1] In 2005, Hunt and Hunt (in preparation) re-surveyed 58 golden eagle breeding territories in west-central California that had been occupied by pairs in 2000; every territory contained a pair in 2005.

In summary, we see that, in a healthy golden eagle population, there are more adults than places to nest, a condition that ensures a high degree of stability in the number of territories annually occupied by pairs. This, in turn, suggests that monitoring the annual

[1] If there are few floaters, then subadult eagles will tend to fill breeding vacancies.

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rate of territory occupancy can be used to detect a decline in the demographic balance, i.e., an insufficiency in the number of floaters to fill vacancies. A principal cause of such a condition (recruitment deficit) is excessive mortality.

MONITORING STRATEGY

A periodic survey of golden eagle territories and territorial occupancy by eagle pairs will be developed and maintained for a sample of golden eagle territories that is of sufficient size to reveal population declines that might occur in the future. An independent biologist (either an employee of the United States Fish and Wildlife Service or a contractor of the United States Fish and Wildlife Service, who in either event shall not previously have been employed by or under contract with the Hopi Tribe or the Navajo Nation) will oversee the monitoring program. That independent biologist shall supervise and work with a biologist for the Hopi Tribe and a biologist for the Navajo Nation, each of whom shall have had previous experience studying the eagle populations on their respective areas.

The basic assumption of the monitoring program is that, in the absence of changes in habitat quality, territories occupied in one year will tend to be reoccupied in the next. However, when survey results show vacant territories, it is essential to differentiate those deriving from (a) a recruitment deficit from (b) those territories that have become un-inhabitable during years of low prey availability (drought effect) or in response to habitat changes.[2] Normally, eagle pairs tend to respond to years of low prey availability by remaining on or near their territories and not breeding, but local habitat changes affecting vacancy must be examined on a site -by-site basis. In any case, these possibilities should be recognizable over the long term and can be placed in perspective relative to the issue of general population decline.

Another pitfall in interpretation arises when pairs are overlooked. Pairs of golden eagles may build several nests within their territories and may alternate among them from year to year. Alternate nests may be up to a mile or more apart, a factor that sometimes makes it difficult to determine whether territories have been abandoned or have simply shifted in core location. The risk of false judgment means that thorough examination is essential. Another source of error is the occasional establishment of ephemeral territories by transient pairings; such territories must be recognized and avoided in survey samples.

TASKS (2006)

Task 1. Assemble records of known territories. In December 2005, or as soon as possible thereafter, the biologists will meet to discuss options for study area boundaries and to agree on the boundaries of the study area. After meeting separately with the Hopi biologist concerning nesting territories on Hopi lands and with the Navajo biologist concerning nesting territories on Navajo lands, the independent biologist will map and compile knowledge of nesting territories believed to be occupied. Records of non-tribal land management agencies (e.g., U.S. Bureau of Land Management, National Park

[2] If there are few floaters, then subadult eagles will tend to fill breeding vacancies.

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Service, Arizona Game and Fish Department) and other sources will also be located, examined, and mapped by the independent biologist. Maps and records will be compiled by the independent biologist to maintain tribal, state, and federal privacy of nest locations. For logistical and socio-political reasons, it is desirable that the monitored territories be, to the extent possible, located on, or at least near, the tribal lands where both harvest and strong concerns for local populations exist. However, it is possible that logistical constraints may necessitate that some territories be placed off tribal lands. From the perspective of monitoring the broad population of golden eagles in the regions, it is not critical that the territories be on the tribal lands, so long as they can be regarded as occurring within the effective population (the pool of recruitment to nests on Navajo and Hopi lands).

Task 2. Conduct aerial survey. In early January 2006 (weather permitting) the independent biologist will travel by fixed-wing aircraft to selected known or suspected territories within the study area. GPS locations of nests, observation points, and routes of ground access will be mapped. The independent biologist will be accompanied by the Hopi biologist to inspect nesting territories on Hopi lands and by the Navajo biologist to inspect nesting territories on Navajo lands.

Task 3. Select initial survey sample. With information from tasks 1 and 2, the independent biologist will select an initial sample of about 70-80 territories to be surveyed. Territories chosen should have known histories of occupancy (where available), reasonable accessibility (ideally by road vehicle), and good visibility from observation points so that alternate nests can be readily surveyed. As discussed above, it is not necessary to survey all territories within the reservations, nor is it necessary that all territories be on reservation lands, so long as they can be regarded as occurring within the effective population (the pool of recruitment to nesting territories on Hopi and Navajo lands). A pool of ten additional territories will be selected as possible replacements for any territories that prove to be either (a) unsuitable for ground survey (Task 4), or (b) unoccupied during the initial occupancy survey (Task 4).

Task 4. Conduct initial occupancy survey. The independent biologist (accompanied by the Hopi biologist on Hopi lands and by the Navajo biologist on Navajo lands) will attempt to observe each selected territory from ground observation points. Evidence of pair occupancy will require the observation of a pair of eagles, or of a single adult incubating, brooding, feeding young, or repairing a nest (Postupalsky 1974). The best time to do this will be during the month before egg-laying (January and early February): golden eagles are usually conspicuous during that period, engaging in "undulation" flights high above their territories. Incubating eagles are more secretive; most begin their 45-day incubation period in February. Successful pairs are again conspicuous when young are over 5-weeks of age (half-grown). However, after the initial few years of establishing baselines, occupancy surveys should not be conducted during the nestling phase due to bias associated with the difficulty in locating pairs that do not lay eggs or fail in the egg stage (Steenhof 1987). Some territories may require a day or more of observation during the initial occupancy survey; others may be more readily assessed, depending on weather-related visibility, and other factors. All things considered, weather

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may be the biggest obstacle to getting the job done. After consultation with Hopi and Navajo biologists and, if desired by the independent biologist, with others familiar with territorial behavior of golden eagles and/or geographical and habitat conditions in the selected territories, the independent biologist shall develop guidelines to ensure that consistent study methods are used across all territories during a given study year, with the understanding that such guidelines may be refined or modified from year to year based on experience as the study unfolds. Without limitation, such guidelines may include such details as the number of visits to be made to a territory, the duration of visits, and timing of visits with respect to date and weather. The independent biologist will record the presence/absence of pairs at all surveyed territories and classify all sites as to the ease (efficiency) with which they are surveyed.

Task 5. Refine baseline sample. On the basis of the results of the initial survey(s), the independent biologist, after consultation with Hopi and Navajo biologists, will select 50-60 occupied territories for continued surveying. The 2006 survey may indicate that a proportion of territories are more economically surveyed with helicopter support, i.e., ferrying ground observers to and from observation points. This contingency may or may not affect the future annual budget, depending on the efficiency with which it can be conducted. Pairs incidentally observed from the helicopter need not be surveyed from the ground.

TASKS (ANNUAL)

Task 6. Conduct annual survey. Biologists will repeat the field survey as outlined in Task 4 in January and February of each year and will continue for the first three to five years to refine the sample of surveyed territories to maximize appropriate representation and cost efficiency. The survey will extend into the incubation and nestling periods as necessary to determine occupancy or vacancy of all selected territories.

Task 7. Resurvey apparent vacancies. Consistent with guidelines as described in Task 4, repeat visits will be made to verify vacancies or the presence of single adults. Nothing herein shall preclude the biologists from revisiting in a subsequent year any territory found to have been unoccupied in an earlier year.

Task 8. Examine conditions at vacant territories and search for newly established territories in the vicinity of vacant territories. As explained above, failure to locate an eagle pair in a previously occupied territory can have several explanations, including (a) insufficient eagles of breeding age in the population to fill all serviceable sites, (b) landscape changes that render the area no longer serviceable, and (c) relocation of the pair to an inaccessible area within their territory. The biologists will make every effort to distinguish between these explanations on a site-by-site basis. In addition, because it is possible that a nest site within a territory simply might change its position, whenever a territory appears unoccupied, biologists will search for newly established territories in the vicinity of vacant territories to attempt to rule out the possibility that the territory boundaries, nest location, or both have been moved but are still occupied.

Task 9. Estimate the trend of territory reoccupancy. Using territory occupancy data collected during the first several years of study as a baseline, the trend of territory reoccupancy in succeeding years will be estimated by the independent biologist using standard statistical methods for estimating trends in wildlife count data and for detecting population declines. The occupancy level and 95% confidence intervals for occupancy rate and trend in occupancy rate will be estimated from the monitored territories each year. One-sided statistical tests will be used for estimating trends (we are interested in the alternative statistical hypothesis that the slope for trend is less than zero; Thompson et al. [1998]).

Task 10. Test hypothesis of stable occupancy. The proposed monitoring is designed to test the following hypothesis:

That sufficient floaters exist to buffer the breeding population on Navajo lands and Hopi lands as a whole against loss, i.e., that the net demographic regime (including immigration) continues to fill all serviceable breeding locations with territorial pairs.

Outcome 1. Annual occupancy surveys show that eagle pairs are present in all or virtually all surveyed territories. Hypothesis is strengthened.

Outcome 2. Eagles are absent in some territories and analyses indicate a statistically significant negative trend. Hypothesis is questioned.

Response to Outcome 2. Systematically examine and report the landscape conditions of unoccupied territories to assess the effects, if any, of drought and/or habitat changes (the amount of work depends upon on the number of such sites).

Outcome 2.1. Eagle absences in territories are explainable by drought effects on territory habitability or habitat changes. Hypothesis is neither strengthened nor weakened.

Outcome 2.2. Eagle absences in territories are not explainable by habitat changes. Hypothesis is weakened.

Response to Outcome 2.2.

2.2.1 The permitted harvest of golden eagles is reduced to reflect vacancies that cannot be explained by changes in habitat conditions.

2.2.2 If more than 10% of occupied territories go unoccupied and cannot be shown to have resumed activity within three years of going unoccupied, then additional and more intensive monitoring would be implemented. Specifically, this result would also trigger the implementation of a general (telemetry-based) study of golden

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eagle mortality in the region with the aim of identifying and mitigating currently unknown mortality agents. Such mitigation might compensate for the harvest. If so, the standard U.S. Fish and Wildlife Service harvest quota could be restored when pair occupancy returns to baseline levels.

DISCUSSION OF BUDGET

The expenses associated with this project will be highest in the initial two or three years when the array of territories to be monitored and their observation points must be identified and mapped. Once the baseline is established, the annual costs should be far lower than those of the earlier years.

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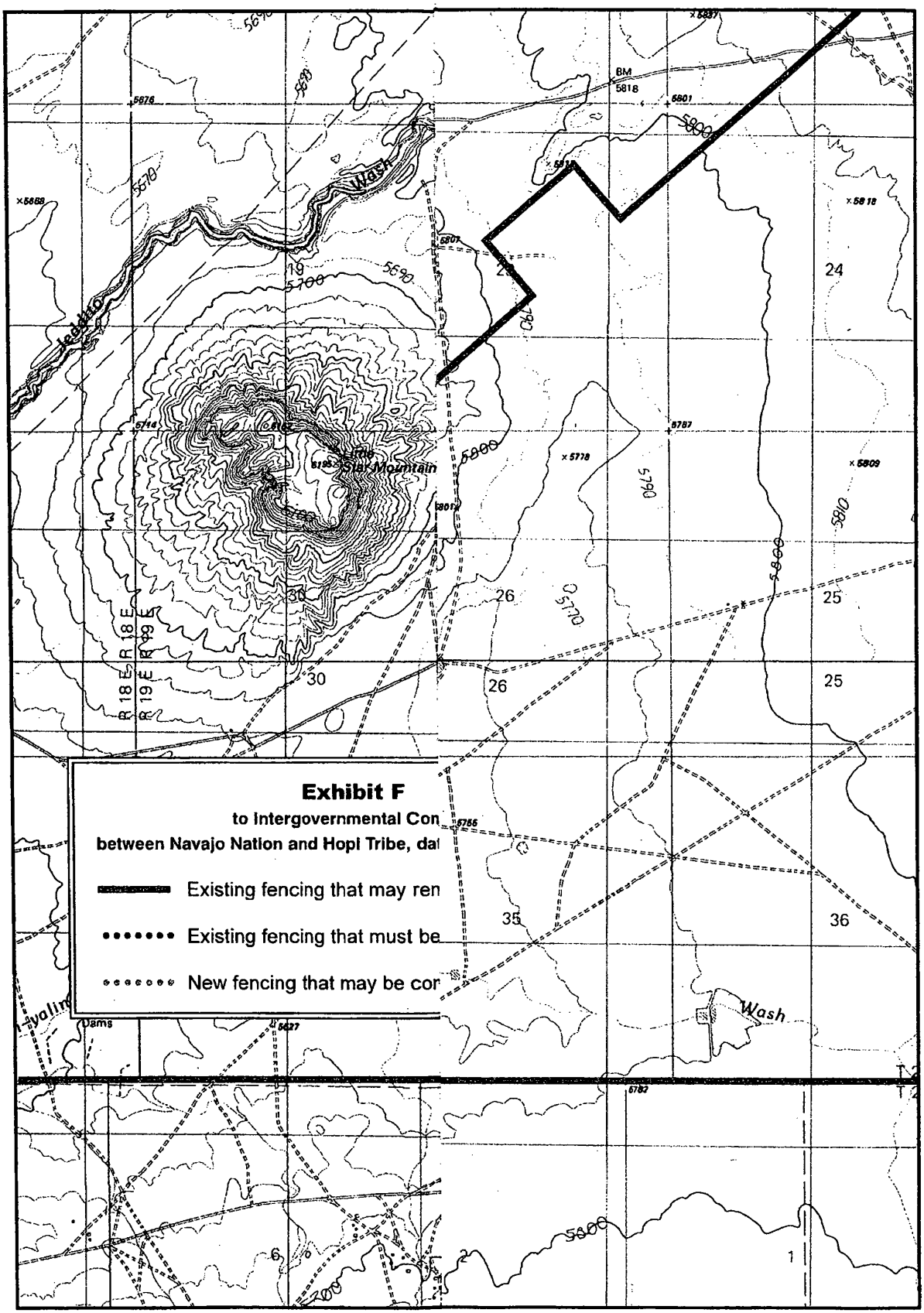
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