

Chapter 11: Implementation Costs and Funding Assurances

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11.0 Introduction

Every plan is different. Every applicant is different. We developed this chapter to present options, not to dictate decisions. Use the tools in this chapter when they make sense to use them.

When figuring how to fund a Habitat Conservation Plan (HCP) the applicant must first estimate what the costs of implementing the plan will be. The applicant should use a comprehensive process to identify and estimate costs over the life of the plan, and where necessary, estimate costs in perpetuity (e.g., preserve management). Cost estimates should include adjustments for inflation.

There must be funding for the implementation to be successful, so the applicant must demonstrate how funding will be assured before we can issue an incidental take permit. The applicant must develop a funding plan early in the planning process that will adequately cover all aspects (financial needs) of HCP implementation and provide proof of the secured funding sources before the plan is approved.

The Endangered Species Act (ESA) guides us on funding HCPs in the following way:

Section 10(a)(2)(A): “the applicant therefore submits to the Secretary a conservation plan that specifies... (ii)... the funding that will be available to implement such steps”.

Section 10(a)(2)(B): (iii) “the applicant will ensure that adequate funding for the plan will be provided.”

The permitting regulations (see the [HCP Handbook Toolbox](#)) for both of the Services also provide specific language on funding HCPs: 50 CFR 17.22 and 17.32 for the U.S. Fish and Wildlife Service (FWS), and 50 CFR 222.307 for the National Marine Fisheries Service (NMFS). Our regulations reflect the language in the ESA that requires applicants to ensure funding for HCP implementation, including changed circumstances and other measures as required.

HCP applicants can fully fund their plan themselves or seek funding from other sources, but all sources of funding relied on in the HCP for implementation must be assured. For regional plans, building a broad coalition to obtain funding from diverse interests, such as infrastructure projects, can be useful in securing adequate funding to implement the HCP.

The Services offices should work with solicitors/general counsel to review and negotiate the financial assurance instruments the applicant uses to support the conservation program proposed in the HCP (see the [HCP Handbook Toolbox](#)).

11.1 Implementation Costs

The issuance criterion to “ensure adequate funding for the plan will be provided” means that the applicant must calculate what the costs of implementing the plan will be. The complexity and size of the plan usually dictate how many different types of HCP costs will be incurred and how much the plan will cost to implement. In general, all plans should:

- thoroughly document the cost estimate (show your work),
 - up-front costs (hiring biologists, management, monitoring, etc.),
 - one-time costs (capital costs),
 - on-going operational costs such as salaries, benefits, consultants, and equipment replacement,
 - costs that will be incurred in perpetuity, and
 - where these costs overlap
- be paid for or assembled (and guaranteed) by the permittee, and
- be paid for during the permit term.

The applicant should include in the HCP detailed estimates of the various categories of plan implementation, including mitigation and how each type will be implemented, and which:

- require use of annual operating funds, such as hiring biologists, monitoring, management, road decommissioning;
- are secured through exactions, such as land set asides, easements; and
- are a part of ongoing operations, such as timber harvest plan costs, etc.

11.1.1 Estimating Costs

The applicant first must clearly demonstrate how they will fund the costs of the elements of plan implementation. Estimating costs for HCPs can be a daunting task. For big plans, applicants often hire economists to help estimate costs. Below are a few tips to help estimate costs.

Use of assumptions:

Encourage applicants to use commonly held assumptions rather than trying to come up with everything on their own. Depending on the cost, these assumptions don't necessarily need to come from HCPs. For example, staff and office costs for an HCP aren't necessarily any different than for staff and office costs of similar businesses or agencies in the area.

Time to estimate versus cost:

Spend more time estimating the high dollar costs and less time on those that aren't significant. For example: don't estimate how many pens each employee might need over a 30-year period, instead, make a quick assumption of x% for office supplies. Conversely, when estimating high dollar costs, an in-depth analysis is warranted because the risk of being significantly off can have repercussions for the entire funding strategy of the HCP.

Use of case studies:

Encourage applicants to use case studies to estimate the costs of certain (especially expensive) actions (e.g., restoration of riparian habitat). Find similar HCPs or HCPs with similar actions to use for a cost comparison. Use the cost comparison to estimate how much similar actions will cost in your plan. When doing case studies, don't forget to factor in the differences between the local market costs.

Helpful Hint: finding a similar HCP with partners willing to share their cost estimates can be extremely helpful, particularly if they have experience from plan implementation.

The following worksheet is an example of how an applicant could estimate and summarize costs of plan implementation. This example includes a minimal amount of information needed, but not all categories will be required for every HCP. Most HCPs will require additional detail where the breakdown of costs and more tables are necessary. See Worksheet 11.1a.

Worksheet 11.1a: Funding Worksheet to Estimate HCP Costs

Eval?	Funding area	Annual Cost estimate										Total Cost estimate
		1	2	3	4	5	6	7	8	9	10	
	Public Outreach:											
	Public meetings											
	Written information/mailings											
	HCP Administration:											
	Annual reporting											
	Meetings											
	Permit processing											
	Minimization and mitigation:											
	Pre-construction surveys											
	Biological monitors											
	Exclusion fences											
	Land acquisition/ easements											
	Purchase credits at bank											
	Restoration											
	Monitoring											
	Compliance											
	Effectiveness											
	Targeted research											
	Adaptive management											
	Reporting											
	Time to develop											
	GIS											
	Printing/publication costs											
	Preserve management											
	Day-to-day management											
	Endowment											
	Signage											
	Changed circumstances											
	Remedial actions											
	Total											

For plans that require land acquisition throughout the permit term, it may be more cost-effective in the long run to front-load funding for the acquisition earlier in the plan. This strategy anticipates long-term fluctuations in the value of land, while minimizing the chance that various stakeholders will be unable to meet their long-term commitments. Ensuring that more funding is available at earlier stages in the plan helps the applicant to better ensure funding in later stages. For example, HCPs with ongoing land acquisition costs should include a mechanism requiring that permittees regularly revisit and adjust fees to make sure mitigation costs can be met throughout plan implementation. For good examples of adjusting fees throughout plan implementation, see the Natomas Basin HCP and the East Contra Costa HCP/NCCP ([HCP Handbook Toolbox](#)).

11.1.2 Preserve Management Costs

Applicants should prepare a detailed property analysis record (or a similar type of analysis) to calculate the costs of land management. Cost analysis must be detailed, specific, and thorough. Software like the one developed by the Center for Natural Lands Management (see the [HCP Handbook Toolbox](#)) can be useful tools to help estimate these costs. In addition, the Nature Conservancy developed Stewardship Calculator tool (see the [HCP Handbook Toolbox](#)) and accompanying handbook that was released in 2016 and is free and available to the public. The calculator was developed with the participation of the EPA, the Land Trust Alliance, National Fish and Wildlife Foundation, U.S. Army Corps of Engineers, and individual land trusts and mitigation bankers. The website also provides additional resources on land stewardship.

11.1.3 Adjusting Funding

HCPs must also consider future costs. How much will it cost to do the same activities in 20 years? To answer this question, applicants generally factor inflation into plan costs. For fee-based plans, the fees must rise to meet costs. An inflationary index is often tied to the HCP cost estimates. Market values for land, services, etc. may change at a different pace than inflationary costs, so estimates must factor that in and funding must be adequate to meet those costs.

The HCP should also consider specific remedies to deal with changed circumstances by including an estimate of their cost and a description of how they will be funded. Applicants must build funding strategies with the long term in mind to ensure sufficient resources are available to respond to changing climates, economic changes, and uncertainty in management effectiveness, among other things.

Long-term HCPs should build rising costs into their estimates. For plans that collect fees, we suggest applicants establish a process in the HCP with regular adjustments so the fees keep pace with costs. It is important to note that applicants sometimes seek to establish firm caps on their funding obligation; however, that may impede the applicant from collecting adequate funds to meet commitments made in the HCP, so we don't advise using caps in these situations.

11.1.4 When a Mitigation Project Doesn't Perform as Proposed

When there is risk of mitigation not going as planned, additional assurances may be needed to ensure the mitigation project can be remedied. These additional assurances are needed when

there is risk an applicant will complete their development project without completing their functional mitigation requirements. For example, a 5-year, development HCP requires acquisition and restoration of a wetland. The acquisition and initial restoration of the wetland occurs before the impacts, but it may take 6 years to know if the restoration is meeting performance targets. In this case, contingency funding should be assured to remedy the restoration if performance targets are not met. Contingency funding could be assured through a letter of credit, performance bond, or similar funding assurance (to a third party beneficiary). If the restoration meets the performance standards, we would release the contingency fund back to the permittee. If the performance targets are not met, the contingency funds would be used to remedy the restoration to meet performance targets. These contingency funding assurances need to be part of the HCP's development, not something that is added later.

Each mitigation project should have a monitoring program funded as part of the project budget. In the example above, the monitoring would be essential in determining if the performance targets are met for the wetland restoration, or if more actions are needed. In addition, a permanent maintenance and management endowment must be created for the program to ensure permanent site protection and continued achievement of performance targets.

11.2 Funding sources

There are a number of ways applicants can fund their HCP conservation strategy commitments and numerous potential sources of funding. Applicants should look broadly for potential funding sources to meet their funding requirements. Land acquisition is a significant expense and contributes to implementation delays for many applicants. Table 11.2a provides examples for sources of funding.

Table 11.2a: Potential Funding Sources for HCPs

Source of funding	Examples	Good for:		
		small/ simple plan	project level/ medium size	regional/ large
In-lieu-fee	Alabama Beach Mouse GCP- MOA established an in-lieu-fee with a local land trust. Fund works by up-front, lump sum payments by an applicant based on number of acres disturbed from project development.	X	X	X
Developer fees collected per acre/property tax assessments	Natomas Basin HCP, Balcones Canyonlands HCP, Clark County MSHCP, Santa Clara Valley HCP/NCCP- this funding source has been used for many county or city lead development plan, they vary somewhat in how they are implemented, but generally fees are collected based on the size of property or extent of impact from development activities.		X	X
State, county, city, or other governmental general fund	San Diego County Water Authority HCP- funded as a capital cost under the Capital Improvement Program Mitigation Program approved by Water Authority Board and/or annual operating budget, Perdido Key County-wide Perdido Key Beach Mouse, Edwards Aquifer Recovery Implementation Program HCP		X	X
Voter-approved bond measures	Western Riverside MSHCP, a condition for local agencies to access funds from a voter-approved transportation bond measure was to "participate" in the HCP (this "participation" equals \$121 million in HCP funding), Southern Edwards Plateau HCP, Pima County Multi-Species Conservation Plan.			X
Energy, sales, and development taxes	San Diego County's TransNet consists of a half-cent sales tax that funds HCP mitigation. To offset impacts caused by the construction of transportation projects, the TransNet EMP set aside \$40 million for the first 10 years for implementation, management, and monitoring of the San Diego HCPs.			X
Infrastructure funding e.g., transportation bond money	The Federal Highway Administration and the Secretary of Transportation have expressed interest in facilitating area-wide HCPs because the plans enable the prompt delivery of large-scale infrastructure, particularly transportation projects. Recently, Title V of the Water Resources Reform and Development Act of 2014 authorized a pilot Water Infrastructure Finance and Innovation Act, which included a provision for loans and loan guarantees for HCPs in conjunction with otherwise eligible water infrastructure projects.			X
Special assessments	Perdido Key HCP- development with Perdido Key beach mouse habitat will be required to pay the annual \$201 per unit special assessment payment, hotels would be assessed \$201 annually per room, commercial developments will be assessed \$201 annually per designated parking space.		X	X
Annual appropriations/ annual funding	Stanford HCP, East Bay Municipal Utility District HCP, North Carolina Division of Marine Fisheries CP, Georgia Department of Natural Resources HCP,		X	X

	Barton Springs Pool HCP- annually appropriated funding was used to fund the plans. Funding is generally set aside within their budget to make sure it is spent on the HCP.			
Landfill tipping fees	Coachella Valley MSHCP- The costs for land management, biological monitoring, and the establishment of an endowment were to be funded by the existing County tipping fee on waste generated in the area and fees generated by a local landfill. The local landfill was expected to generate a sufficient stream of revenue such that a loan could be made to provide funding for the land acquisition program.		X	X
Water management fees	The Edwards Aquifer HCP (EA HCP) is an effort to balance the need to protect threatened and endangered species that are known to only exist in the Edwards Aquifer and springs fed by that aquifer and the region's reliance on the same aquifer for its water needs. The costs associated with implementation of the EA HCP are provided through the assessment of a program aquifer management fee on EA municipal and industrial permit holders. Additional funding is provided from downstream interests including the Guadalupe-Blanco River Authority, the San Antonio River Authority, the City of Victoria, the City of San Antonio's City Public Service Board, the Guadalupe Basin Coalition, Union Carbide, and the Nueces River Authority.		X	X
Private foundations	The Doris Duke Charitable Foundation administers grants in cooperation with the National Fish and Wildlife Foundation, Wildlife Conservation Society, and the National Council for Science and the Environment. Most projects funded are broad scale Statewide or regional efforts that help implement objectives of State Wildlife Action Plans (SWAP). Unsolicited proposals are not accepted and a letter of inquiry must first be submitted. Multi-year grants range from \$125,000 to \$3 million.		X	X
Federal - U.S. Department of Agriculture (USDA) Forest Legacy Program	The Forest Legacy Program (FLP) is a voluntary private land conservation program between the USDA Forest Service, States, land trusts, private landowners, and others. It provides financial assistance to ensure important forests remain intact and on the tax rolls, and that they continue to contribute to the community, the local economy, the landowner, and the environment. The program provides up to 75% of the funds needed to acquire (fee or easement) forestlands used for timber production that are threatened by development. Goals of the program are to promote forestland protection and other conservation opportunities; to maintain traditional forest uses; protect water quality; prevent development along pristine lakes, ponds and streams; provide public recreation opportunities; maintain productive forests; and prevent the fragmentation and conversion of private forest land. FLP-funded acquisitions include protection of important scenic, cultural, fish, wildlife and recreational resources, riparian areas, and other ecological values.	X	X	
Federal - USDA Farm and Ranchland Protection Program (FRPP)	FRPP is a voluntary program that helps farmers and ranchers keep their land in agriculture. The program provides matching funds to State, tribal, or local governments and non-governmental organizations to purchase conservation easements. Participating	X		

	<p>landowners agree not to convert their land to nonagricultural uses and to develop and implement a conservation plan for highly erodible land. Grant amounts vary but the land protected by easement must be privately owned, be part or all of a farm or ranch, and contain prime, unique or other productive soils. Additional requirements apply.</p>			
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11.3 Funding Assurances

The Services should conduct an independent review and must make a finding that the proposed funding amounts and sources in an HCP are adequate, sufficient, reliable and will meet the purposes of the conservation strategy for the permittee to receive No Surprises assurances and to keep their permit in good standing. The permittee must fully fund and implement the HCP. Because HCPs vary widely in scope, duration, types of take, and mitigation and minimization measures, there have been various funding strategies to assure funding in HCPs.

The HCP must provide details for the different types of costs in the HCP, identify sources of funding, and provide assurances for the identified funding sources. The applicant must assure that funding is available for HCP implementation and that avoidance, minimization, and mitigation measures can be implemented to avoid, reduce, and offset impacts to covered species from HCP covered activities. Funding assurances are also required to ensure that mitigation occurs and that it meets the performance standards for which it was implemented. Finally the HCP needs to incorporate funding for monitoring and to ensure changed circumstances are adequately addressed. Without such funding assurances, the Services cannot issue an incidental take permit.

Some elements of the conservation plan warrant special consideration in terms of funding assurances, including:

- when mitigation may occur after the activities that result in take,
- future operating costs (e.g., hiring consultants to conduct surveys, costs to address changed circumstances, etc.),
- permanent management,
- monitoring,
- responses to changed circumstances, and
- any requirements that continue (e.g., in perpetuity) after the permit ends.

If there are potential indirect effects attributable to implementation of the proposed HCP covered activities, the HCP should incorporate contingency measures that address how those impacts will be remediated and provide the funding assurances for such measures. Examples include:

- Road work near a riparian area: the road bank may erode later and damage important riparian habitat.
- Development near a wetland area: development may later be found to have altered the hydrologic basin to the point that it changes the volume and refill rate of the wetland in a way that is significant to covered species.

- Fragmentation from development: development may take place later that could impact the connectivity of the covered species' population in a significant way.

There are a number of factors to consider when advising applicants on how to structure funding assurances. Plan duration is often an important consideration. For example, shorter term plans may want to consider performance-based funding assurances to ensure all conservation measures are completed within the shorter permit duration. On the other hand, longer term permits may want to consider different funding assurances mechanisms such as stay-ahead provisions (described in 9.1.8). Applicant financial solvency may influence the type and durability of funding assurances. For example, if there is a high risk of HCP avoidance, minimization, and/or mitigation measures not getting implemented, the Services should require the strongest funding assurances (e.g., letters of credit, performance bonds). Whereas, if there is a low risk of not fully implementing the HCP, less stringent funding assurances may apply (e.g., demonstration of solvency and commitment to implement measures over the long term).

11.3.1 Examples of Plan Types and Funding Assurance Approaches That May Apply

Low-Effect HCPs and Single Project HCPs

Low-effect or single project HCPs may be for projects such as development of a single-family residence or small housing development; small scale forestry or a site-specific oil and gas operation; farm or ranch operations; or any other activities that would result in smaller-scale take of listed species. Mitigation may range from preserving habitat on-site to purchasing mitigation credits from a Service-approved conservation bank.

- *Method to fund:* These most often include landowner funds.
- *Methods to assure funding:* purchase agreements with a conservation bank, letters of credit, conservation easements to encumber real property, endowments for management, performance bonds, or surety bonds.

Development HCPs

These HCPs usually combine land already owned with land that must be acquired. The conservation land is assembled into a preserve with management requirements into perpetuity. Cost of management, both short and long-term, must be estimated in the plan. Applicants should identify costs born during development activities to minimize effects (e.g., exclusion fencing) separately from costs associated with those requiring additional funding, such as acquisition of mitigation land and associated restoration, management, and monitoring costs. The latter category requires additional assurances of funding. This may be in the form of an upfront endowment fund to pay for permanent management and monitoring. If the mitigation land will not be purchased prior to take, it should include enough secured funding to pay for reasonably identified mitigation land and habitat management endowment by a certain date, or a requirement that mitigation credits in a Service-approved mitigation bank be purchased prior to development.

- *Method to fund:* landowner funds, development fees, association dues, and other types of fees.

- *Methods to assure funding*: endowments for long term management, up-front payment before development occurs, performance bonds, letters of credit, and corporate guarantees (see details below).

Regional HCPs

Regional HCPs may also be development HCPs. The method to fund and methods to assure funding are different from those used for development HCPs as the scale of impacts and conservation is usually much greater.

- *Method to fund*: These include tax assessments, bond measures, developer fees, general funds, and transportation funds.
- *Method to assure funding*: Funding assurances are made through stay-ahead provisions (described in 9.1.8), specific ordinances or bonds passed for the sole purpose of HCP implementation, conservation easements to encumber real property, non-wasting endowments for management, and demonstration of ability to collect fees.

Timber HCPs

With important exceptions, the minimization and mitigation measures of timber HCPs are connected to timber harvests and carried out as part of their timber harvest plans as they go forward (e.g., survey requirements, tree marking, minimum stream buffer zones, requirements for leaving large woody debris, avoiding steep slope areas prone to mass wasting). Applicants may consider such measures as operating expenses to be factored into the costs of each timber harvest plan. Other costs, such as road storm proofing and HCP compliance and effectiveness monitoring, are not tied to specific timber harvest plans, must be separately funded and generally must have more rigorous assurances. Generally HCP implementation costs, and related funding assurances, would focus on costs of the HCP conservation strategy that extend beyond the normal timber harvest activities that would be ongoing without an HCP.

- *Method to fund*: These plans are often “pay as you go” HCPs, meaning that HCP implementation costs are wrapped into revenues from the underlying activities (e.g., timber sale receipts).
- *Method to assure funding*: Because timber plans generally don’t acquire land, their main financial commitments are in the:
 - Manner in which they harvest, and
 - Infrastructure improvements to reduce effects of harvesting (e.g., bank stabilization, culverts, etc.). Funding is often out-of-pocket and requires additional assurances. For example, annually authorized letters of credit or establishment and proof of sufficient funds in reserve accounts are methods sometimes used to assure funding in timber plans.

Non-Federal, Governmental HCPs

Non-Federal governmental entities, such as state agencies, county governments, municipal governments, or quasi-governmental businesses (e.g., utilities) may develop HCPs for the same

or similar activities as private entities. These HCPs cover development activities for timber harvest, transportation, utility lines, etc. and are often implemented by their partners.

- *Method to fund*: These include tax assessments, bond measures, developer fees, general funds, and transportation funds.
- *Method to assure funding*: Funding assurances are made through annual appropriations, stay-ahead provisions (described in 9.1.8), “pay-as-you-go” mechanisms (see section specific ordinances or bonds passed for the sole purpose of HCP implementation), conservation easements, non-wasting endowments for management, and demonstration of ability to collect fees. In addition, some agencies have well-established programs with environmental staff dedicated to conservation activities and functions that are paid for through annual budgets and will provide those services for the HCP. Funding assurances for entities that rely on annual appropriations is sometimes accomplished by a requirement that incidental take authorization is contingent on annually demonstrating evidence of annual funding requests and annual confirmation of adequate legislatively approved budgets.

11.3.2 Categories of HCP Implementation Costs

HCP costs can be divided into three different categories based on the costs and type of funding assurances needed. This may vary based on the size and complexity of the plan.

1. program administration;
2. implementation of avoidance, minimization, and mitigation measures; and
3. long-term management.

Each plan may not need to break out each of these cost categories and each category does not necessarily have or need the same type of funding assurances. For example, small plans sometimes purchase credits at a conservation bank, where the bank builds long-term management costs into their fees (rather than the applicant needing to provide management costs themselves). Before discussing fundings assurances, the Services should advise applicants to estimate the costs of implementing the plan (see section 11.1 for more information).

1. **Program administration** costs include items such as:

- staffing,
- office space,
- insurance,
- equipment, and
- overhead.

Types of plans where this applies: These costs typically apply to all plans with implementation commitments longer than 5 years.

Way to assure funding:

For businesses: annual appropriations, financial tests with corporate guarantees, etc.

For municipalities: annual appropriations, financial tests with corporate guarantees, demonstration that fees collected will be adequate to cover these costs and that they have the authority/ability to collect those fees, etc.

2. **Implementation of avoidance, minimization, and mitigation measure**

costs:

- funding for specific avoidance and/or minimization measures;
- funding for offsite mitigation;
- ensuring performance of mitigation meets intended purpose;
 - performance bond, or
 - letter of credit;
- habitat restoration/creation;
- monitoring, research, and scientific review;
- contingency funding (e.g., changed circumstances);
- land acquisition - new land that is acquired (in fee or by easement) or permittee owned land that is managed to support biological goals and objectives; and
- preserve management and maintenance, including adaptive management.

Types of plans where this applies: These costs apply to all HCPs, but the mechanisms to assure funding differs among them.

Way to assure funding: Assurances for avoidance and minimization measures often provide funds if the avoidance and minimization measures either don't happen or don't meet the performance standards. Specific instruments include letters of credit, performance bonds, surety bonds, casualty insurance, and cash in escrow. Assurances for mitigation costs often include stay-ahead provisions and performance-based instruments to ensure conservation achieves the performance standards. Specific instruments include performance bonds, letter of credits (often annually renewed), surety bonds, certificates of deposit, and in some rare cases financial test and corporate guarantee. Municipalities often implement stay-ahead provisions and fund plans through user fees or by bond measures. They generally have to demonstrate authority/ability to collect fees and describe how bond measures have already been passed, on which they can draw funds to implement the HCP.

The duration of plans is an important consideration for funding assurances. Short-term plans may only have one project that they build and the permit ends. Funding assurances for short-term plans need to be adequate to ensure mitigation occurs and performance standards are met. Assurances may be needed that extend beyond the permit term. Funding assurances for long-term plans can take advantage of a permittee's ongoing need for take authorization, which gives the permittee incentive to ensure their permit is in good standing. Additionally, actions taken in long-term plans have longer to ensure management actions meet performance standards during the permit term.

Another important consideration when assessing funding assurances is the risk that an applicant won't implement conservation measures or ensure performance standards are met. Factors to consider when assessing risk include: financial solvency, stability of a company or industry, cost of HCP relative to overall applicant budget, etc.

Stay-ahead provisions, where conservation occurs or where fees are collected (like through an in-lieu fee program) before impacts, are useful to ensure minimization and mitigation measures occur as planned. Assurances for all types of plans and applicants need to be set-up in a way that makes sure commitments are honored, and performance targets are met without over-burdening the applicant or the Services with unnecessary costs and administrative obstacles.

3. Perpetual Management Costs After Permit Expiration

Plans that include management and monitoring into perpetuity (after the permit expires) must provide funding assurances for perpetuity. Long-term management endowments are a preferred mechanism for providing these assurances.

If there is a high risk of the HCP not being fully implemented (specifically the avoidance, minimization, or mitigation measures) based on the level of the Services' confidence in the applicant, we should require more funding assurances (e.g., letters of credit, performance bonds, etc.). Conversely, if we expect there's a low risk of not fully implementing the HCP, we generally require less stringent funding assurances (e.g., demonstration of solvency and commitment to implement measures over the long term). The figure 11.3a, below, presents a way to think about the risk associated with different types of plans and applicants, and how it may shift the funding assurances that are required.

During HCP negotiations we must decide how much confidence we have that the applicant will fully implement their HCP, which helps us determine the type of funding assurance we will require. Factors that go into our risk determination are the duration of the requested permit and the nature of the applicant. See general examples of the level of risk associated with select applicants below.

Some examples of how you might assess risk:

- Low risk: municipalities, utilities, well-established, environmentally conscious companies, etc.
- Moderate risk: well-established companies, companies with high profit margins, etc.
- High risk: new companies, companies in a volatile industry where companies often go out of business, etc.

Figure 11.3a: Generalized Risk Model to Characterize Appropriate Funding Assurances During Plan Implementation

		Moderate risk	High risk
Permit length	short	<u>Assurances required:</u> -Credits at bank -Letter of credit	<u>Assurances required:</u> -Performance bonds -Credits at bank -Letter of credit -Cash in escrow
	long	Low risk <u>Assurances required:</u> -Demonstrate ability to collect funds -Annual appropriations/ operating expenses	Moderate risk <u>Assurances required:</u> -Annual letter of credit -Performance bonds -Financial test + corporate guarantee
		low	high
Degree of risk conservation measures will not be implemented (based on applicant)			

We need to ensure activities occur during the permit term as planned, or that assurances are in place to ensure they take place after the permit term is over. Often the mitigation requirement, such as ongoing preserve management, outlast the permit term, so it is important that long term management, including funding for it, be in place well before the end of the permit term.

Sometimes applicants elect to use conservation banks or other mitigation banks to fulfill its mitigation obligations. Conservation banks are responsible for the management of the mitigation lands secured. On the other hand, if an applicant relies on third-party mitigation lands or mitigation lands for which the applicant is responsible, all management responsibilities, including adaptive management procedures associated with those lands, must be fully funded and managed by the designated third-party entity, or the applicant, respectively.

11.3.2.1 The Effect of Stay-Ahead Provisions on Funding Assurances

Stay-ahead provisions often go together with funding assurances for conservation measures associated with land acquisition or restoration. At their simplest, stay-ahead provisions are a commitment to initiate conservation actions before impacts that result in take occur. Stay-ahead provisions do not replace the need for identifying costs and assuring funding, but they do reduce the concern that impacts will happen and conservation will not happen. Stay-ahead provisions generally work best for plans with discrete conservation actions (e.g., land acquisition, restoration).

11.3.3 Types of Funding Assurances

There are many different ways to assure funding, each with different pros and cons, not the least of which include cost and security. There is no one-size-fits-all for assuring funding with HCPs. The size of projects (impacts and conservation), type of applicant (e.g., homeowner, company, or municipality), and activities for which funding needs to be assured (administration;

implementation of avoidance, minimization, and mitigation measures; and long-term management) often dictate what is the appropriate mechanism to adequately assure funding.

Below is a list of funding assurance instruments that have been used to assure funding. Some of these terms and tools may be adjusted from their traditional use to meet the needs of HCPs.

As described more fully below in section 11.3.4, the Services lack statutory authority to accept directly, retain, and draw upon funds from performance bonds, and/or letters of credit to ensure compliance with permit conditions. Because of this, a third party is needed to act on the Services' behalf as a beneficiary of some of the funding sources described below.

We wrote this discussion based on "Implementing Financial Assurance for Mitigation Project Success," by Paul Scodari et. al. June 2011, Institute for Water Resources and U.S. Army Corps of Engineers (see the [HCP Handbook Toolbox](#)). This is a good resource for short-term assurances.

A. Cash in Escrow

Summary: For HCPs, an escrow is an agreement between a mitigation provider (the grantor, permittee), the Services (the grantee), and a third-party beneficiary to transfer ownership of cash from the grantor to the beneficiary if the grantor fails to meet the obligations specified in the agreement. A neutral third party, such as a law firm or financial institution (the depository), receives and holds the money and assures its transfer to the grantee's beneficiary if the grantor fails to fulfill its obligations. Prior to a claim, legal title to the money in escrow remains with the grantor (permittee); however, after the money has been transferred to the depository, the cash cannot be returned to the grantor until the grantee (Services) notifies the financial institution that the grantor has fulfilled its obligations. In other words, the cash in escrow should be transferred from the permittee to the beneficiary only if the permittee fails to meet the obligations specified in the agreement and the permittee does not actively take steps to satisfy the HCP's requirements. In HCPs, the cash would be held as a security to ensure that certain measures are implemented and perform as expected, and if they do not, the third party beneficiary would draw from the funds to remedy the situation. Escrow accounts must be conditioned to be non-wasting. If the account is interest-bearing, the involved parties must agree on the rate of the interest. This mechanism is commonly used for short-term assurances.

Pros-

- This is an excellent assurance because the money is readily available and the account does not expire.
- Money can be added to the account for a phased process, and funds can also be drawn down as mitigation is completed or returned to the permittee at the end.
- This has been used successfully in many HCPs.

Cons-

- Expensive for the permittee as full funding must be placed in the escrow account.

Appropriate for: most HCPs.

B. Casualty Insurance

Summary: Casualty insurance is a contract between a mitigation provider (the insured) and an insurance company (the insurer) for claims against the policy made by the Service up to a specified dollar limit for a specified period of time. If performance measures are not met, the Services can make a claim to draw on the funds. The insurance company may fulfill the claim directly or by cash payment to a Services designee. The applicant would repay the insurer any costs that result from a claim up to the amount of the deductible. This mechanism requires the Services to identify an appropriate third party beneficiary to implement the measures that the permittee was unable to perform. This mechanism is best used for short-term assurances.

Pros-

- This has an advantage over performance bonds in that the Services, not the insurance company, determine if the permittee is in default.

Cons-

- This method of funding assurance has not yet been used for HCPs, so it is untested.
- Some other Federal action agencies (e.g., Seattle district of the U.S. Army Corps of Engineers) does not accept this type of funding assurance.

Appropriate for: small projects to ensure they perform as planned (e.g., restoration).

C. Letter of Credit

Summary: A letter of credit is a document that a financial institution issues on behalf of a mitigation provider (the permittee) that provides for payment of the permittee's obligations. Payment is assured up to a specified dollar amount during a specified period of time. If we determine that the permittee has failed to fulfill its obligations in the letter, the Services can demand payment of all or part of the dollar amount specified in the letter. Money is then drawn from the account by the third-party beneficiary to take remediation actions where performance is insufficient. The permittee then owes that amount to the financial institution according to the terms of a loan agreement between the financial institution and the permittee established to secure the letter. These loan agreements often require the permittee to post collateral with the issuer. Typically, letters of credit have to be renewed annually. Such letters should be made "irrevocable" (e.g., cannot be revoked during its term without agreement from the Services) to ensure that the bank will honor all claims the third-party beneficiary makes during the letter term. This mechanism is commonly used for short-term assurances.

Pros-

- This tool has been successfully used extensively in HCPs.
- Letters of credit can be adjusted over the permit period to match the remaining funding obligation (e.g., the amount assured can decrease as the mitigation is put in place). This can reduce the cost of the letter of credit for a permittee.

Cons-

- Irrevocable letter of credit is more expensive than a performance bond for the permittee.
- Must look carefully at the provisions in the letter of credit and the bank that is used.

- Typically no longer than 5 years. Must be renewed prior to expiration if funding is still needed to complete mitigation.
- We must preserve and safeguard the original letter of credit instrument as if it were cash. Copies or scans cannot be used to draw funds.

Appropriate for: some minimization measures (e.g., road and stream protection), monitoring or management actions for short-term plans, and for assuring measures in the short term.

D. Performance Bonds

Summary: A performance bond is an assurance contract with a specified dollar limit for a specified period of time where a bonding company (the surety) assumes the obligations of a mitigation provider (the permittee) in case the permittee fails to fulfill their obligations or meet performance standards. The surety may fulfill the permittee's obligations either by performing those obligations up to the limit of the penal sum, or by paying an amount up to the penal sum (less any costs already incurred by the surety). Payments are made to Service-approved, third-party beneficiary to meet the specified performance standards. To secure a performance bond, the permittee must enter into an indemnity agreement with the surety that requires the permittee to reimburse the surety for any loss the surety may incur under the performance bond. Indemnity agreements often require the permittee to post collateral with the surety. This mechanism is best used for short-term assurances.

Pros-

- Minimizes the Services' oversight.

Cons-

- We do not recommend these funding assurances due to the problems associated with performance claims when the principal fails to fulfill their obligations.

Appropriate for: small projects to ensure they perform as planned (e.g., restoration).

E. Endowments

Summary: Most often an endowment is established to fund the long-term management of a preserve created from HCP mitigation after the permit term. The endowment is an interest-bearing account that generates adequate yearly income to fund the annual management of the preserve land in perpetuity. Many endowments are set up where only the interest is available for use and the principal is not withdrawn, providing a perpetual source of funding for management of the preserve. The endowment may be funded in full at the time of HCP approval or in increments, but should be fully funded within a reasonable timeframe that minimizes risk that the permit will expire before the applicant has fully funded the endowment. While endowments are usually set up for in perpetuity post-permit management, they can be established to ensure funds are available during the permit term for avoidance, minimization, and mitigation measures and HCP administration. Endowments are held by different third parties including by a non-governmental entity that holds the easement on the preserved land, by a non-governmental entity (e.g., National Fish and Wildlife Foundation) separate from the preserved land, or by a community bank. This mechanism is commonly used for long-term assurances.

Pros-

- Endowments are a known instrument used often in HCPs and conservation banks.
- Endowments are a good mechanism for long term funding.

Cons-

- May require a large initial investment by the permittee.
- Endowments involve financial risk and are subject to stock market fluctuations.

Appropriate for: post-permit management and monitoring, could be established to ensure funds are available throughout the permit term for avoidance, minimization, and mitigation measures, and HCP administration.

F. Annual Appropriations

Summary: Annual appropriations refer to governmental agencies establishing an annual budget where funds are dedicated to specific purposes. A government passes regular appropriations bills annually and the funding covers 1 fiscal year. For HCPs, local governments (e.g., city, county, water district, etc.) have used annual appropriations to fund HCPs. This funding source is especially important for stay-ahead provisions in an HCP. For instance, certain amounts of incidental take coverage would be contingent on annual evidence that the budgets were approved and funded each year. This is one of the most common funding mechanisms in state and local governmental lead HCPs. This mechanism is commonly used for long-term assurances.

Pros-

- Relatively easy for the permittee to set up within their annual budget process.

Cons-

- Support for appropriations changes through time with no guarantee that the appropriation will continue.
- Vulnerable to legal challenge unless strong stay-ahead provisions (or other assurance) are in place and enforced.
- May require a suspension of the permit if appropriations are not passed in a given year (this should be described in the HCP that incidental take authorizations are contingent on sufficient funding)

Appropriate for: covering administrative costs, large municipalities may be able to cover conservation/mitigation actions in this manner

G. Legislatively Guaranteed Funding

Summary: Large municipal HCPs, cities, counties, or States can legislatively mandate funding be made available for and used by HCPs. These type of funding assurances also require stay-ahead provisions to ensure conservation occurs before development occurs. This mechanism is best used for long-term assurances.

Pros-

- Strong commitment to fund and implement HCPs.

Cons-

- May not cover contingencies (e.g., changed circumstances) unless flexibility is built in.
- Can be legislatively removed.

Appropriate for: administrative and implementation costs of municipal lead plans (e.g., county, city, water district, etc.).

H. Certificates of deposit (CD)

Summary: A CD is a certificate issued by a bank to a person or company depositing money for a specified length of time. It's essentially a savings certificate entitling the bearer to receive interest. A CD bears a maturity date and a specified fixed interest rate, and it can be issued in any denomination. CDs are generally issued by commercial banks and are insured by the FDIC. The term of a CD generally ranges from 1 month to 5 years. For HCPs, CDs have been used to demonstrate the applicant has sufficient funds to implement the HCP or some aspect of it. In a sense, money is parked in a CD to prove funding is available and that it has been set aside for the purposes of the HCP.

Pros-

- Simple and straightforward to set up

Cons-

- Generally CDs don't have a third-party agreement, and the permittee retains control of the release of funds

Appropriate for: demonstrating that money is available to implement the HCP.

I. Financial Test and Corporate Guarantee

Summary: A financial test is an evaluation to establish current financial condition of a business or municipality. The idea behind them is that based on the results of the financial test, the business or municipality will have the financial capacity to fund implementation of the HCP. A corporate guarantee is where the business or municipality agrees to be held responsible for terms of an agreement, often with funds held by a bank as a security. A financial test combined with a corporate guarantee represents a strong way to assure funding by businesses and municipalities.

Pros-

- Thorough financial evaluation and commitment to fund an HCP.

Cons-

- If funds are not held by a bank as security, the agreement may not be enforceable. Would require the Services to go through a permit suspension/revocation process.

Appropriate for: could be used to provide funding assurances for all aspects of an HCP.

J. Irrevocable Trust

Summary: An irrevocable trust is one that can't be modified or terminated without the permission of the beneficiary. Cash, annuities, CDs, stock, real estate, or other valuable assets are put into the trust. The grantor (in this case the permittee), would transfer assets into the trust,

which would effectively remove all of their rights of ownership to the assets and the trust. The implementing entity could be set up as the beneficiary, and they would draw funds from the trust to pay for plan implementation or post-permit management. Irrevocable trusts are set up with constraints on when and how funds can be drawn.

Pros-

- Since the permittee no longer owns the funds, it is removed from taxable assets of the permittee, so it's no longer liable for those taxes.

Cons-

- In addition to the initial fees to set up the trust, there may be an ongoing fee owed to manage the assets, as well as other accounting costs.

Appropriate for: demonstrating that funding is available to implement the HCP, funding post-permit management and monitoring.

K. Standby Trust

Summary: A standby trust is an agreement between a third-party beneficiary (approved by the Services), a financial institution, and the permittee to provide assurance that funds will be available if remedies are needed to fix a non-performing project or to ensure mitigation occurs if the permittee does not implement conservation activities as agreed. The trust is established to provide all or part of any financial assurance called upon. The specific areas or actions to be covered by the trust must be identified. It is called a "standby trust" because the owner (permittee) creates an investment plan and the manager of the trust (financial institution) carries out the plan based on the terms of the trust.

Pros-

- It is a known instrument, used by the U. S. Environmental Protection Agency (EPA).

Cons-

- Not all States have standby trusts.

Appropriate for: to ensure minimization measures are implemented per the HCP, and for short-term plans standby trusts can be used to ensure monitoring or management actions are implemented and ensure that mitigation measures are implemented per the HCP.

L. Trust Fund

Summary: A trust fund is comprised of a variety of assets intended to provide benefits to an individual or organization. For HCPs, the permittee establishes the trust fund to provide financial security that the plan will be implemented according to the terms of the agreement, and if it isn't, funds are released to a third-party beneficiary the Services select to remedy the situation. The trust fund can be used to both prove funds are available to implement the plan and as a security to ensure the terms of the agreement are followed.

Pros-

- This is a well-known and understood financial tool.

Cons-

- May require a separate agreement with a third-party beneficiary.

Appropriate for: small projects to ensure they perform as planned (e.g., restoration), prove availability of funds for minimization and mitigation measures, and for post-permit management and monitoring.

M. Surety Bond

Summary: A surety bond is a contract among at least three parties. For HCPs, it would be the Service, the permittee, and a financial institution (usually a surety company) to ensure the permittee doesn't default. If the permittee defaulted or was unable to complete the mitigation actions, the Service would make a claim and the surety company would be responsible for finding an alternate entity (using the funds paid into the bond by the permittee) to implement the mitigation actions as described in the agreement.

Pros-



- Surety company finds appropriate contractor to implement mitigation, which saves time for the Service.

Cons-

- Surety bonds can be expensive for the permittee as they would be required to place all of the funds necessary to implement the mitigation actions into the bond.

Appropriate for: small or medium sized plans to implement mitigation actions like restoration or acquisition.

Table 11.3a: summarizes the different types of commonly used funding assurance instruments.

Table 11.3a Summary of funding assurance instruments						
Short Term Assurances					Long Term Assurances	
 =pro  =con	Cash Escrow	Letter of Credit	Performance Bond	Casualty Insurance	Endowment	Annual Appropriations
Availability	* Readily implemented ⊖ May not be feasible due to initial costs	* May be difficult to secure (credit market)	⊖ Not standard for HCPs: surety may bond only construction, not performance	* New, but available in every state	* Available * Used in many HCPs	+ Readily available to municipalities
Cost	* Minimal to implement ⊖ High cost to establish	* 1% of credit limit per year * Opportunity cost of posted collateral	* ~1.5-5% of penal sum * Opportunity cost of posted collateral and time	* One-time premium 2-4% of annualized dollar limit of insurance	⊖ High cost to initially fund	+ No extra costs
Term & Renewal	* Flexible; can be indefinite	⊖ Issued for <= 1 yr; can set to auto-renew but is at issuer discretion	⊖ Limited (1-2 yrs)	+ Could cover time period of HCP life + Cannot be cancelled without agency consent	* Flexible; can be indefinite	* Annual
Claims & Performance	+ Ready source of cash when necessary ⊖ Provides means but not remedy itself, additional agreement needed	+ Guaranteed source of funds when necessary ⊖ Provides means but not remedy itself, additional agreement needed	⊖ Surety will remedy by most cost-effective means to them; possibility for disputes	+ Insurer will pay or remedy, as directed by agency	+ Interest is used and is available as needed, primary fund stays intact	⊖ There is no fund set aside to provide surety of performance ⊖ Provides a means to fund a plan, but additional agreements are needed to assure the funding
Duration appropriate for	* Short term/project assurances * Could also use as "stay ahead" funding to ensure funding is available for future years of plan implementation	* Short term/project assurances	* Short term/project assurances	* Short term/project assurances	* Long-term assurances * Post permit assurances	* Long term assurances
Projects appropriate for	* Risk of performance/ non compliance * Plans with indirect effects from implementation of the HCP covered activities, especially with effects later in time (e.g. road building near a stream)	* Risk of performance/ non compliance * Plans with indirect effects from implementation of the HCP covered activities, especially with effects later in time (e.g. road building near a stream)	* Risk of performance/ non compliance * Plans with indirect effects from implementation of the HCP covered activities, especially with effects later in time (e.g. road building near a stream)	* Risk of performance/ non compliance * Plans with indirect effects from implementation of the HCP covered activities, especially with effects later in time (e.g. road building near a stream)	* All plans with long-term costs	* Municipal plans * Stable businesses (as proven through a financial test)
Useful for	* Assuring measures are implemented or meets performance standards	* Assuring measures are implemented or meets performance standards	* Assuring measures are implemented or meets performance standards	* Assuring measures are implemented or meets performance standards	* Post permit management and monitoring	* Municipality: admin costs, implementation costs * Business: admin costs
Other potential uses		* Can also be used for assuring funding for management and monitoring costs			* Endowments can also be used for funding implementation of the HCP during the permit term	

11.3.3.1 Determining Adequate Funding Assurances for a Specific Project

The applicant must estimate the total amount of funding needed and use one or several of the funding assurance methods above to guarantee that funds are available. The applicant estimates should include the following:

- Annual HCP administration costs multiplied by the number of years the HCP will be in effect,
- + the cost of minimization and mitigation measures,
- + the cost of other outstanding funding needs.

Any required funding assurances should also be sufficient to cover contingency actions (e.g., default by the permittee, non-performance, etc.) and should be based on the size and complexity of the project, the estimate required to remediate the proposed mitigation project, and monitoring of the site. These contingency funds would be used if a project doesn't meet its performance measures. These contingency funds must be built into the HCP.

11.3.4 Third-Party Beneficiaries

The Services lack statutory authority to accept directly, retain, and draw upon funds from performance bonds, letters of credit, etc. to ensure compliance with permit conditions. These limitations are a result of the Miscellaneous Receipts Statute, 31 U.S.C. § 3302(b)(see the [HCP Handbook Toolbox](#)). Therefore, the terms of the funding assurances instrument must be carefully crafted to ensure that the Services can direct the funds deposited to be used for providing permit compliance, without the Services directly accepting or disbursing the funds.

11.3.4.1 Third-Party Beneficiary Structure

Funding instruments that require a third-party beneficiary should be executed with the signatures of an additional governmental or non-governmental environmental management entity (e.g., NFWF, Friends Group, State Fish and Game, etc.) as a bond “surety.” The third party must agree to ensure performance if we determine that the permittee, as the bond “principal,” has defaulted on any of its responsibilities. The HCP should also specify that the Services stands as an “obligee” to the principal and surety of the bond, having the full and final authority to determine the penal sum amount. The permit and bond must also state that the Services determines whether the permittee has specifically performed some or all of the obligations, covenants, terms, conditions, and agreements of the bond. Finally, the funding instrument should specify that if both the principal and the third party default in their responsibilities, the Services retain the full and final discretionary authority to identify new parties as additional surety(ies) to the bond.

11.3.4.2 Collecting Funds

Funding assurances are to be payable at the Services’ discretion to the third party designee of the financial instrument or to a standby trust agreement. The conditions under which funds are payable should be clearly stated in the financial instrument and, if possible, in the HCP. The decision to collect funds occurs in two situations—when actions were not implemented, or when actions do not meet performance standards during the agreed upon term. Performance standards could be based on: implementation of an action or not, or ecological performance standards.

If the performance metric is simply whether or not the action occurred, consider developing an agreed on process and schedule that will make clear when actions must happen (by a certain date), and what actions will be implemented if they don’t. Ecological performance standards should be based on the best available science to determine reasonable objectives that can be measured with an agreed upon amount of effort.

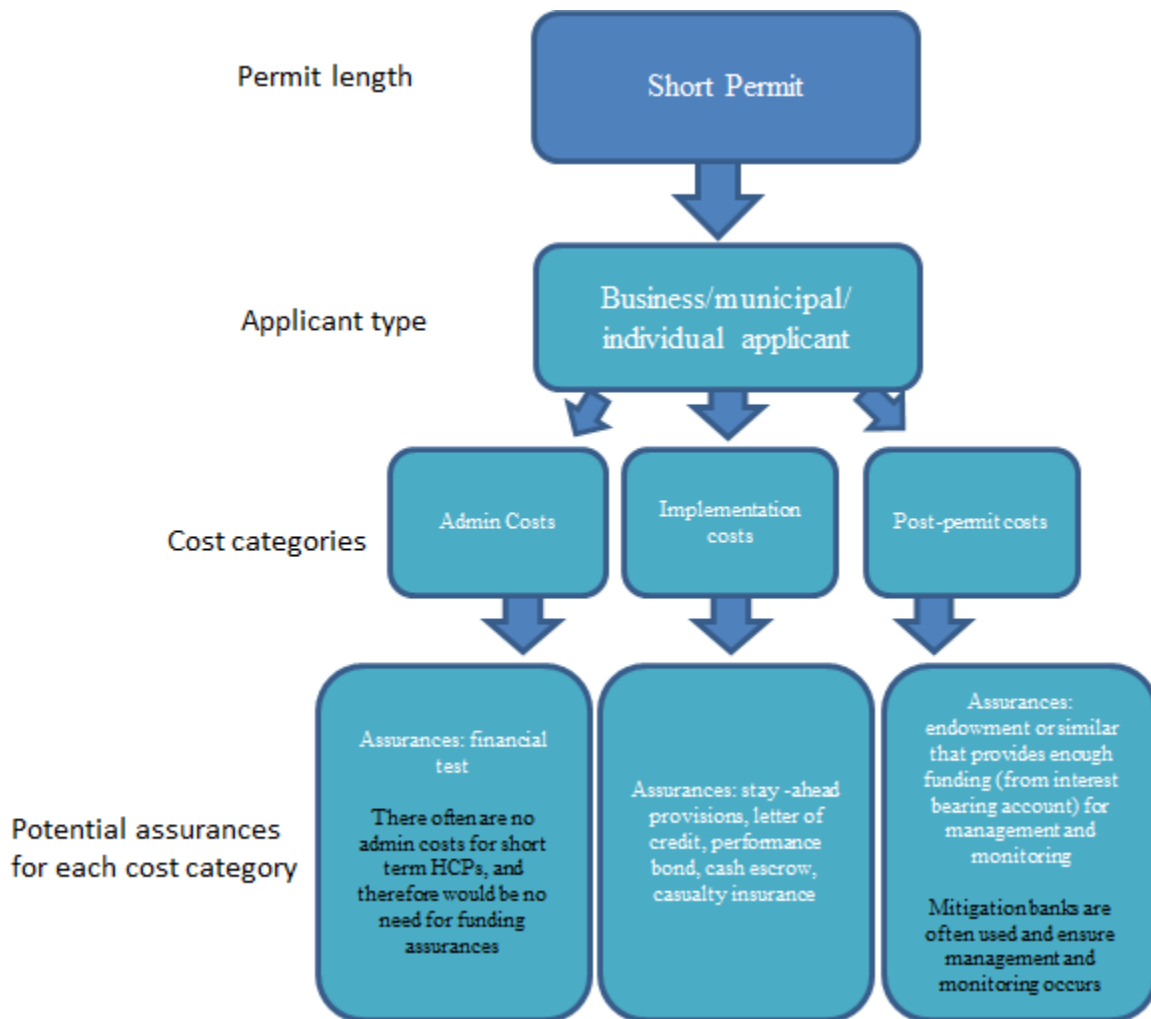
We must notify the permittee of non-compliance. If the permittee cannot come back into compliance, funds must be called on from the financial instrument. After conditions have been triggered to collect funds, the Services must notify the third-party beneficiary that it should collect funds and implement remedial actions.

11.3.5 Putting It All Together

Every plan is different. Every applicant is different. We developed this chapter to present options, not to dictate decisions. Use these tools when they make sense. The two graphics below

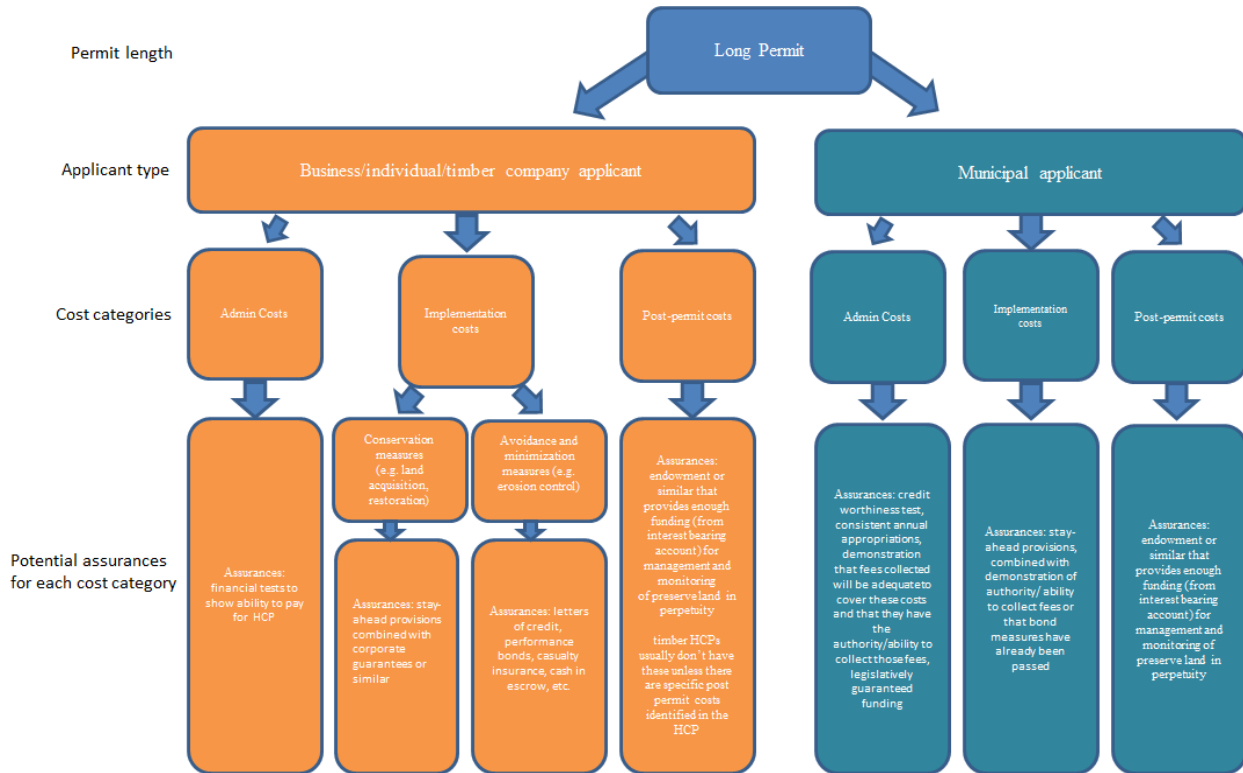
are essentially decision trees. Figure 13.3b is for short-term permits (e.g. up to 10 years) and Figure 13.3c is for long-term permits (e.g. for more than 10 years). Not every scenario can be illustrated, but we've tried to represent the major ones. Use these decision trees as a starting place to think about which types of funding assurances could go with broad plan types. Further thought and consideration is needed about your HCP to figure out which funding assurance instruments are appropriate.

Figure 13.3b: Short-Term Permit Cost Categories and Assurances. This is a guide to help people think in general about what is needed. Each situation is different, care and thought should be given with each.



Short-term permits often lack all the same cost categories as long-term permits, so not all three cost categories above apply in every short-term permit. Not all types of funding assurances are listed; we've only listed the most commonly used.

Figure 13.3c: Long-Term Permit Cost Categories and Assurances. This is a guide to help people think in general about what is needed. Each situation is different, care and thought should be given with each.



Long-term permits have multiple cost categories, and funding assurances may be different for each. Additionally, each type of applicant may need different types and levels of assurances depending on the specific situation. Not all types of funding assurances are listed; we've only listed the most commonly used.